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THE
NEW ENGLAND STATES

THEIR
CONSTITUTIONAL, JUDICIAL
EDUCATIONAL, COMMERCIAL, PROFESSIONAL AND
INDUSTRIAL HISTORY

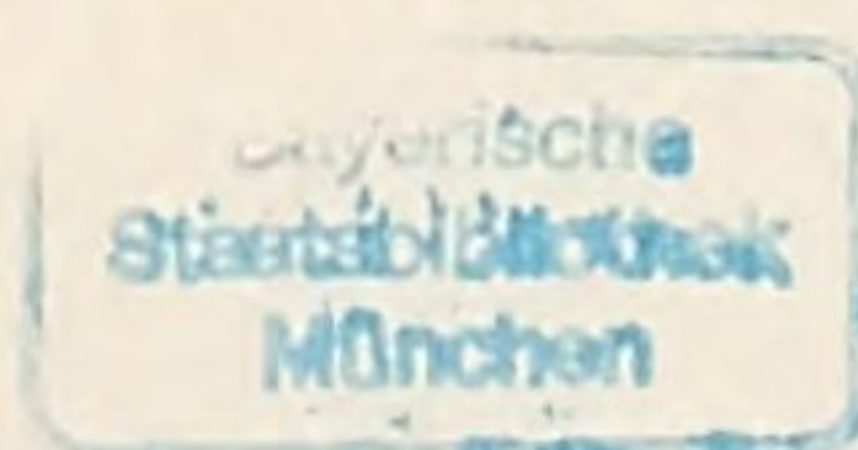
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THE NEW ENGLAND STATES.

CHAPTER XLII.

INSURANCE IN CONNECTICUT.

BY P. HENRY WOODWARD.

FIRE INSURANCE.*

UNDERWRITING in Connecticut began in the last decade of the eighteenth century. Its early ventures were humble, for the country was poor and few could afford to take risks. Most of the large fortunes of the colonial period were scattered and lost during the Revolution. At the close of the struggle the stock of specie on hand went abroad to buy goods for which importers could find little else to offer in payment. Six years of unrest and anxiety followed, during which the work of repair progressed slowly. It was not till the adoption of the Federal Constitution in 1789, and the establishment of a mild but stable central government that our people threw off the weight of repression.

When Washington became the first president there was slight travel, or traffic, or social intercourse between residents of different states. Habits of isolation arose, not alone from difficulties of transportation, but from deep-seated though wholly irrational antipathies. The free commingling of troops from all the colonies during the war did little to arouse a spirit of nationality. Sons of Massachusetts and Connecticut, of Virginia and Carolina, were intensely loyal to their respective mothers, but hardly cared for brothers across the border, except as united in a common league to break the hated yoke of King George.

In Connecticut the industrial situation at the commencement of our story was simple. Manufactures, except for coarse articles of prime necessity, awaited birth among the unsuspected marvels of the future. A large majority drew support from agriculture. Commerce with the West Indies and with neighboring groups of islands carried off the surplus, giving not only employment, but practical education to many youth, born of the best blood of the commonwealth, who learned every part of the business from selling and buying cargoes to navigating ships, running blockades and eluding hostile cruisers. Hartford, New Haven, Middletown, New London and Norwich gathered the surplus products of surrounding districts, and distributed the goods purchased in exchange.

After 1789 the reawakened energies of our people found outlets in ever-multiplying activities. In 1792 the Hartford Bank and the Union Bank of New London were organized. The benefits were so quickly apparent that other towns hastened to pro-

* A few citations without change of verbiage have been incorporated in the following history from reports made from time to time by the writer.

vide like facilities. At Hartford insurance followed quickly in the wake of the new bank, initiated and largely carried on for half a generation by the same men.

Early in 1794 Sanford and Wadsworth opened an office for the purpose of insuring houses, furniture, merchandise, etc., against fire. Policy No. 2, issued February 8, 1794, insures the house of William Imlay for one year at the rate of one-half per cent.

As the evolution of a policy satisfactory to both parties making the contract, has been long and tedious, and is still incomplete, the first attempts in that line have a peculiar interest. It runs thus, pen-written words being reproduced in italics.

"No. 2.

WHEREAS *William Imlay, Esq., of Hartford*, or whom else it may concern, wholly or partly, Friend or Foe, doth make Assurance *on His House* against Fire, and all dangers of Fire; moreover against all Damage which on Account of Fire may happen, either by Tempest, Fire, Wind, own Fire, Negligence and Fault of own Servants, or of Neighbors, whether those nearest or furthest off; all external Accidents and Misfortunes; thought of or not thought of, in what manner soever the damage by Fire might happen; *for the space of one year commencing on the eighth day of February, 1794, and ending on the eighth day of February, 1795, both at twelve o'clock at Noon*, valuing specially and voluntarily the said *House at the Sum Insured*.—And the Assured, or whom it may concern, in case of Damage, or Hurt, shall need to give no Proof nor account of the Value; but the producing this Policy shall suffice. And in case it should happen that the said *House*, the Whole or Part, are burnt and suffer Damage, on that Account, we do hereby promise punctually to pay and ratify, within the space of three Months after the Fire shall have happened, due Notice having been given to us, and no Deduction to be made from the Sum assured except Two and an Half per Cent., provided said Loss amounts to Five per Cent., under which no Loss or Damage will be paid. And in case of a partial Loss, all that shall be found to be saved and preserved, shall be deducted, after the Deduction of the Charges paid for the saving and preserving; and concerning which the Assured shall be believed on his Oath, without our-alleging any thing against it. And so we the Assurers are contented, and bind Ourselves and Goods present and to come, renouncing all Cavils and Exceptions contrary to these Presents, for the true Performance of the Premises, the Consideration due unto us for this Assurance by the Assured, at and after the Rate of *one-half per cent*.

Reciprocally submitting all Differences to two Persons, One to be chosen by the Assured out of Three to be named by the Assurer, the other by the Assurer or Assurers, out of Three to be named by the Assured, who shall have full Power to adjust the same; but in case they cannot agree, then such two Persons shall choose a Third, and any two of them agreeing, shall be obligatory to both Parties.

In Witness Whereof, We the Assurers have subscribed our Names and Sums assured in *Hartford the 8th Day of February, One Thousand Seven Hundred and Ninety-four*.

£800 *Sanford & Wadsworth*
for the *Hartford Fire Insurance Company*. } *Eight hundred Pounds.*

At no point can charges of evasion or ambiguity be brought against the document. In preparing the printed form, it was well understood that none but persons of good repute could buy indemnity. Sanford & Wadsworth either signed for themselves alone, or for a small coterie for whom they acted as agents. There was then no such chartered institution as the "Hartford Fire Insurance Company."

Jeremiah Wadsworth, John Caldwell, Sanford & Wadsworth, Elias Shipman and John Morgan, July 27, 1795, formed a copartnership "for the purpose of underwriting on vessels, stock, merchandise, etc., by the firm of the Hartford and New Haven Insurance Company." Obviously this is the partnership of the year before enlarged by the addition of Elias Shipman, of New Haven, who was made agent at that city. Between the others there had been, and continued to be, very close relations. They were together in many enterprises, both public and private. When the new member was taken in, the name was also expanded that it might cover with its comprehensiveness the entire field of operations. John Caldwell was appointed agent for

Hartford. Elias Shipman soon withdrew, establishing a separate business in New Haven. From the fall of 1797 this was carried on under the charter of the New Haven Insurance Company till it retired in 1833.

Local marine insurance soon became a separate branch of the business, crystallizing around Ezekiel Williams, Jr. It was carried on not by a definite association, but by distinct combinations, variable in *personnel* and in amounts written. Mr. Williams formed the groups, collected the premiums, kept the records, investigated claims and paid losses.

Owing to the excellence of its harbor most of the vessels covered by the policies thus issued sailed to and from New London. A smaller number hailed from Saybrook, Middletown, and the Connecticut River. With few exceptions they were bound to the West Indies and to the smaller groups in the same seas. There was some coastwise trade with Charleston, S. C. Rarely a ship cleared for an European port.

For the round trip the gross premiums often ran up to ten, twelve, fifteen and sixteen per cent., and in some cases even higher, according to the character of the voyage. Material rebates were frequently allowed if the vessel either touched only or avoided certain ports, and returned safely. For the premium the assured usually gave their notes, payable out of the profits or at the close of the venture.

The assurers agreed to bear "perils of seas, men of war, fires, enemies, pirates, rovers, thieves, jettisons, letters of mart, and counter-mart, surprizals, takings at sea, arrests, restraints, and detainments of all kings, princes, or people of what nation, condition or quality soever; baraty of the master (unless the assured be the owner of the vessel) and mariners, and all other losses, perils and misfortunes, that have or shall come to the hurt, detriment or damage of the said vessel or any part thereof, for which assurers are legally accountable."

Aside from the terminals named in the policy vessels were allowed, without prejudice, to sail to, touch and stay at any ports or places, if obliged by stress of weather, or unavoidable accident. In case of loss the assured abated two and one-half per cent., and payment was to be made within ninety days after proof, provided the loss amounted to five per cent., under which limit no liability was incurred unless in case of general average. Disputes were settled by arbitration, the decision being final.

The amounts written by the several assurers on a single vessel were very variable. Sometimes a dozen parties would join, taking from fifty to one hundred and fifty dollars each. Others freely wrote two, three, and as high as five and six hundred dollars. John Caldwell was, perhaps, the boldest operator. Quite a number ventured in once or twice and then retired permanently from the arena. A single hit cured them of the gambling propensity, if so harsh a word may be used in connection with a strictly legitimate business. When autumnal tempests were raging or wintry winds howling, the timid found a risk on a marine policy a dreadful hindrance to sleep.

The names that appear most frequently are John Caldwell, Michael and Thomas Bull, Asa and Dan Hopkins, Richard Alsop, Normand Knox, John Chenevard, E. Williams, Jr., Thomas Sanford, John Morgan, Hudson & Goodwin, William Howe, Samuel Lawrence, Gleason & Cowles, Hooker & Chaffee, Spencer Whiting, Daniel Jones, John Knox, Samuel Alcott, somewhat in the above order.

Wherever any line of effort attains paramount success, especially if it involves unusual difficulties and dangers, the inquirer will find that at the outset, or at some crisis in its development, or most often continuously, its destinies have been carried by men of strong character and marked ability. Experiments in underwriting have

been freely made in nearly all the cities of the state. With the exception of a few mutual fire companies, outside of a single town, almost every venture has ended in disaster. In many instances the tradition of their existence has faded out, even in the communities where they once flourished. If questioned on the point the local antiquary looks blank and asks for time. Of them it can generally be said that they were managed with ordinary ability, and were destroyed by extraordinary calamities.

Hartford stands forth a conspicuous exception. Though in size but a speck on the map of the world, she has few rivals in underwriting, while the oldest, richest and biggest cities on the planet would be rash to claim superiority. To comprehend the situation as presented to-day we must review the history of the men who laid the foundations, and of their successors who have reared the superstructure.

The first avowed partnership formed for the purpose begins with the name of Jeremiah Wadsworth, an intimate associate of Robert Morris and Alexander Hamilton, and one of the best equipped financiers of the time. He was born in Hartford July 12, 1743, son of Rev. Daniel Wadsworth, pastor of the First Church. At the age of thirty he settled in his native town as a merchant, having made several voyages as master. By successive promotions he became, in the spring of 1778, commissary-general of purchases for the colonies. Later he accepted a similar position in the French army in America, and held it till our allies returned home. Under his roof Washington, Lafayette, Rochambeau, Ternay, and many other dignitaries were entertained.

Colonel Wadsworth was one of the founders of the Bank of North America in Philadelphia, in 1781-2, taking one hundred and four shares of \$400 each. In 1785, on the urgent advice of Alexander Hamilton, he was elected president of the Bank of New York. He was a director in the first United States Bank, and was chiefly instrumental in organizing the Hartford Bank, of which he was elected president, but declined.

Besides filling minor positions Colonel Wadsworth served in the Continental Congress, in the convention called to ratify the Constitution, and three terms in the Federal Congress. Public-spirited and large-hearted, he was foremost in the enterprises which he believed would advance the prosperity of his neighbors and of the country. He died April 30, 1804. In our histories his eminent talents and services have received scant recognition.

Peleg Sanford, confidential clerk of Col. Wadsworth, formed a partnership with his only son Daniel, under the title of Sanford & Wadsworth. By mutual consent the firm was dissolved January 10, 1798. Mr. Sanford moved to New Haven, and died in April, 1801, on the passage from Charleston to New York.

Rich by inheritance and benevolent by nature, Daniel Wadsworth was chiefly noted among contemporaries for the grandeur of his belongings, and is chiefly remembered for the munificence of his public gifts. He furnished the site and a generous cash subscription for the Athenæum, where the literary, artistic and historical treasures of the city are largely collected. To this institution he bequeathed thirty paintings, several by eminent artists. His influence on the movements of business was more indirect than active. He died in 1848.

Major John Caldwell, a merchant extensively engaged in foreign and domestic trade, held a leading place in nearly all the local enterprises of his time. He built and owned ships, providing no small share of the cargoes to and from the West Indies, and the ports of other foreign lands. He was president of the Hartford Marine Insurance Company throughout its entire existence; first major of the Governor's Horse Guards, incorporated in 1788; and was elected twenty times to the

legislature, which then met semi-annually. John Trumbull, the poet, John Caldwell and John Morgan constituted the commission for building the State House, begun in 1794. Major Caldwell was also a member of the commission that supervised the building of the bridge across the Connecticut in 1809. He was one of the founders of the Asylum for the Deaf and Dumb, the pioneer school in the United States for the education of this class of unfortunate children. Young men came from the West Indies to acquire a mercantile education in his house. Several, after returning home, became distinguished merchants. The firm of John Caldwell & Co. prospered for a long period, but later sustained ruinous losses in the Napoleonic wars and in the War of 1812. He lived twenty years after retirement from active work, passing away May 20, 1838, in his eighty-third year, having been born December 31, 1755. Six feet tall and of stalwart frame, he is still remembered as a genial and courtly gentleman of the colonial type. Col. Samuel Colt, inventor of the revolver, was the son of his daughter Sarah.

John Morgan, of the fifth generation from James, the emigrant ancestor, having graduated at Yale College in 1772, selected Hartford for a home, and became a leading merchant of the Connecticut Valley. By the largest subscription and by tireless efforts he pushed the construction of the bridge across the Connecticut, holding the presidency of the company from 1809 till 1820. The street thence to Main took his name. His operations were so extended that he made large importations in the first American craft to enter Chinese waters. He was devoted to Christ Church, and was largely instrumental in raising it from weakness to strength. Possessing a rich, well-trained voice, he not unfrequently read the service on Sundays. Outside, in excited talk, he now and then tore words from their decorous settings in the prayer-book to drop them quite unconsciously into bad company. Fellow-worshippers knew that no harm was meant and gently overlooked these aberrations of language. To the last Maj. Caldwell and John Morgan clung to the colonial style of dress, short breeches, long stockings, silver knee-buckles and ruffled shirt bosoms, which well became their high bearing and courtly manners. The large fortune of Mr. Morgan was lost in the business distress that long bore heavily on New England, during and after the War of 1812. He died in New York city, September 19, 1842, aged eighty-nine.

These men undoubtedly made up the partnership of 1794, known as the "Hartford Fire Insurance Company." When Elias Shipman was admitted in July, 1795, out of compliment to him and to express more accurately its enlarged scope of operations, the name was changed to the Hartford and New Haven Insurance Company, the word Fire being designedly omitted as excluding marine risks.

With the dissolution of the partnership of Sanford & Wadsworth in 1798, the Hartford and New Haven Insurance Company passed away. Caldwell and Morgan brought the weight of their wealth and influence to the aid of Ezekiel Williams, Jr., who as already described became the central figure for the next few years in the marine insurance of the Connecticut valley.

Ezekiel Williams, Jr., was born at Wethersfield, Conn., December 29, 1765. In both the male and female lines the descendants of Robert Williams, of Roxbury, Mass., the emigrant ancestor of Ezekiel, have in large numbers by character and talents won high position both in the professions and in business. His father, for twenty-two years sheriff of Hartford county, resigned in 1789. Silas Deane, chagrined that a townsman could surpass him in loyalty to the cause of independence, spoke sneeringly of his ardor as "boiling zeal." The zeal sprang from both temperament and training, for his father Rev. Solomon Williams for over half a century

was pastor of the church in Lebanon, of which Gov. Jonathan Trumbull was a pillar. From the view-point of the king that church was one of the hottest nests of treason in America. William Williams, signer of the Declaration of Independence, was a brother of Ezekiel, Sr. "Rector" Elisha Williams, brother of Rev. Solomon, served as colonel in the field, as chaplain of a regiment, as judge of the superior court and as president of Yale College. Such fruit ripened on a single twig of the family tree. Ezekiel, Jr., graduated at Yale in 1785. He was postmaster at Hartford from 1795 till 1803. He married Abigail, daughter of Oliver Ellsworth, chief justice of the United States Supreme Court, and died October 18, 1843.

John Chenevard, son of John Michael Chenevard, of Geneva, was born in Hartford in 1733, about ten years after the arrival of his father in this country. Having been a member of the council from the charter of the city in 1788, till March, 1799, he was then elected alderman in place of John Caldwell, who had also served in one or other of the boards continuously during the same period. A thrifty merchant, he left, in 1805, an estate of over thirty thousand dollars.

Michael and Thomas Bull were the youngest sons of Caleb and Martha (Caldwell) Bull, who had twelve children that lived to marry. Six of the sons were original stockholders in the Hartford Bank. At this time, from numbers and standing, the family had wide influence.

Hudson & Goodwin published the *Connecticut Courant*, established in 1764, the oldest newspaper in the country. From the day the first number was issued, till the close of the War of 1812, the people of the state moved forward with singular unanimity, and the *Courant* voiced their convictions on matters of morals, religion and politics. Despite the increase in the number of competitors for popular favor, and the rivalry of an ever-growing body of literature, it still retains a large share of its ancient power. Mr. Goodwin's active connection with the paper lasted for seventy years. He died May 13, 1844, "the oldest man in the town," having been born in 1757. Mr. Hudson withdrew in 1815.

In Hartford the pioneers in underwriting gave the profession a character, which has clung to it through all vicissitudes of fortune. The early method of conducting the business involved a great deal of needless labor. Many policies bore from ten to fourteen signatures. In the first place these must all be procured. In case of a prosperous voyage, the distribution of the premiums called for an interview with each subscriber. Less cheerful was the presence of the broker when he went around to collect for losses. Some were not in, some not ready to settle, and frequent were the invitations to "come again." A single contract might impose on him twenty or more separate interviews, and each contract required a repetition of the same routine. A large part of the details could be avoided by a "pooling of issues." Accordingly, in October, 1803, a charter was procured for "The Hartford Insurance Company." * The capital was \$80,000, with the privilege of increase to \$150,000, divided into shares of \$40 each. Twenty-five per cent. was paid in notes in two equal installments, and the remaining seventy-five per cent. in notes secured by mortgages on real estate, or by approved indorsements. John Caldwell, Jonathan Brace and Ephraim Root were authorized to call the first meeting of stockholders, and to appoint one of their number to preside thereat. The company was organized and ready for business within two months from the passage of the act of incorporation. John Caldwell was elected president, and Normand Knox, secretary. It opened an office on the south side of Pearl street, near Main, one door west of the Hartford

* Incorporated as "The Hartford Insurance Company," but called in early policies "The Hartford Marine Insurance Company." Its business was wholly marine.

Bank. Mr. Knox was also cashier of the bank from June, 1799, till July, 1814, when he resigned to take the presidency of the Phoenix Bank. The contract of the company follows mainly the forms in use, but explicitly excludes from responsibility individual shareholders :

"And the assured in this policy expressly agrees, and the Hartford Marine Insurance Company by their president undertake, that the joint stock and property of the said company, shall alone be responsible for any loss that may accrue upon this policy ; and the assured, by accepting the signature of the president, gives credit thereby only to the said stock, and disavows having recourse to the person or separate property of any member of the company. And all suits to be brought, if any there shall be, shall be brought against the president who subscribes this policy, or his successor in office for the time being ; and all recoveries had thereon, shall be conclusive upon the company, so far as to render the company's property liable thereby and no farther."

Mr. Williams continued for a short time to solicit business on the old plan, but, about the middle of June, 1804, gave up the unequal contest. Later, he succeeded Mr. Knox as secretary.

For ten years from 1807, Thomas Scott Williams, younger brother of Ezekiel, Jr., held the place. He was born at Wethersfield, Conn., June 26, 1777, graduated at Yale College in 1794, studied law, and, rounding out his education by a course in practical insurance, further dignified the family record by various services in the General Assembly, by representing the district in the Fifteenth Congress, by four years in the mayoralty of Hartford, and by eighteen on the bench,—thirteen as Chief Justice of Connecticut. All benevolent enterprises found in him an ardent friend. He died December 15, 1861.

The secretaryship must have possessed great attractions, for in 1817 Mr. Williams was succeeded by his brother-in-law, William W. Ellsworth, afterwards member of Congress and governor. In May, 1825, the stockholders were incorporated as the Protection Insurance Company. John Caldwell remained president till the company was merged in its successor.

Besides the companies located at Hartford and New Haven, the Norwich Marine and the Middletown Insurance Companies were chartered in 1803, and the Union of New London in 1805. The business of the five, by the several acts of incorporation, was confined wholly to marine insurance.

A practice, enjoined at first by the poverty of the country, prevailed for a long time from the ease with which it allowed new ventures to be launched on a small investment of funds in hand. Nearly all early charters required a variable, but never a large percentage of the subscriptions to stock to be paid either at once or within a few weeks, leaving the balance to be represented by notes secured to the satisfaction of the directors. These obligations might or might not bear interest ; but if they did it was expected that the payments, as they fell due, would be canceled by dividends. Still, both subscribers and the public looked upon the stock-notes as binding obligations, to be met to the last cent in case of necessity. Later in the development of the country, swindlers, ever on the alert not only to contrive new schemes of fraud, but to pervert existing customs to purposes of cheating, hit upon the device of starting bogus concerns on froth instead of cash. Of course these went to pieces in the first serious storm. Policy-holders, misled by lying statements, lost heavily. Educated by experience, the people became more careful, while, in state after state, this kind of cheats has been suppressed by law.

The capital of the New Haven Company, the first of the group, was fixed at not less than fifty thousand dollars, divided into shares of twenty-five dollars. Five

dollars on each share were called for within thirty days from the time of subscription, five more by note of hand payable within sixty days, and the remaining fifteen were paid by stock-notes. While the shareholders were relieved from personal liability outside of the special investment, they were also required to insert in every policy a clause expressive of the fact.

Elias Shipman, who had acquired an appetite for insurance by his connection with the first group of underwriters in Hartford, procured the charter, and in January, 1798, was elected president. Austin Denison was appointed secretary. At the annual meeting a year later, the board declared a dividend of \$3 a share out of the profits of the previous six months, or 30 per cent. on the cash actually paid in. The following July the dividend was increased to \$5 a share, or 50 per cent. on the money invested. These were paid through the New Haven Bank, of which William Lyon, treasurer of the insurance company, was cashier. Mr. Shipman held the presidency about twenty-six years, and was succeeded by Gilbert Totten. In 1833 Timothy Dwight was elected president. Secretaries were Austin Denison, 1798-1812; John Shipman, 1812-1833; Elihu Sanford, 1833.

For reasons to be given presently, its early good fortune did not long continue. After a patient struggle with adversity, in 1831 the stockholders voted to suspend business for two years, or, until a special committee raised to consider the situation, with Timothy Dwight as chairman, should judge it expedient to call a meeting in order to resume. But the outlook did not improve. In January, 1833, the stockholders voted to cease the issue of further policies. No dividend had been paid for six years, and the committee reported that the prospect of making good past losses by future income was far from flattering. The affairs of the company were quickly settled, the sum of \$7.25 on each share having been distributed the following July as a final dividend. After retirement from active operations, the organization was kept up nominally, with Timothy Dwight as an impressive figurehead, for the purpose of pressing claims against the government on account of French spoliations.

The capital of the Norwich was the same as that of the New Haven Company, the shares being \$50 each.

Middletown secured more liberal terms. The capital of her company was \$60,000, divided into shares of \$50 each, on which \$2.50 were paid at the time of subscribing, the same amount within thirty days after commencing business, and the other \$45 in notes.

Benjamin Williams, who had written marine risks on his own account, was first president, holding the place till 1810, when he was succeeded by Ebenezer Sage. In 1819 Joseph Alsop became president, and soon after the company wound up its affairs. Secretaries were Asher Miller, Enoch Parsons, Chauncey Whittlesey and Samuel B. Redfield.

The capital of the Union Insurance Company at New London was fixed at not less than \$100,000, with the privilege of increase to \$150,000. By way of variety it was divided into shares of \$200 each. Ten per cent. was called for in two installments of five per cent. each, and the other ninety per cent. in notes secured by mortgage on real estate or by personal indorsements.

Presidents were: Jared Starr, 1805-1818; Elihu Denison, 1818-1829; Coddington Billings, 1829-1831; Richard Law and Coleby Chew. Secretaries were: Job Taber, David Colt, Thomas S. Perkins, Coleby Chew and Joshua C. Learned.

The Ocean, of New Haven, incorporated in October, 1818, began business on a capital of \$60,000 the following June, in its office on Union wharf. Roger Sherman was president and Truman Woodward secretary. Justus Harrison became secretary

in 1832. Conditions were too unfavorable to permit the concern ever to gain a sure foothold. After a long infancy it passed away by a lingering death.

The marine companies that entered the field, near the beginning of the century, for a short time enjoyed great prosperity. With no experience to aid the managers in framing a system, they divided current earnings to the last penny, without a thought of building up reserves to carry them safely through seasons of possible disaster.

During the Napoleonic wars our carrying trade, stimulated for short intervals by abnormal profits, was vexed and robbed by Great Britain and France in turn, who both looked with equal contempt upon our rights and our power. As if this were not enough, our own government adopted a policy of retaliation, still more destructive to our commerce than the lawless acts of the belligerents.

New Haven, New London, Hartford and other towns of the lower Connecticut valley, had an extensive and, when let alone, a lucrative trade with the West Indies and other islands in the same seas. Exports embraced horses, cattle, hay, lumber, hoops, staves, flour, corn, corn-meal, potatoes, oats, beans, onions, tobacco, cheese, lard, beef, pork, butter, crackers, etc. Imports consisted mostly of sugar, salt, rum, and molasses. Horses which were rapidly used up on the sugar plantations, and for which there was a steady demand, and cattle, were driven across the country to the ports on the sound. A great deal of stuff from Massachusetts, Vermont and New Hampshire was floated down the river to Hartford, and either shipped direct, or carried around to New London in small craft, and there transferred to ocean freighters.

In Connecticut many young men of the highest promise, after leaving school, acquired on shipboard experience of great value to themselves and to the country. Bright boys were thrust into positions of responsibility, and often acquitted themselves admirably. Beset with perils from the utter disregard of England and France for neutral rights, they became skillful in eluding dangers which they were too weak to meet openly.

To masters thus trained wide latitude was given. Live stock was usually consigned to some dealer on the islands and the in-bound cargo to the captain. After the first landing he was authorized to sail to other ports at his discretion, according to the state of the market and the political outlook. Owners instructed captains to be careful not to get into difficulty by going into a blockaded port, or by taking on board contraband goods, and yet, ever ready to run risks for the chance of great gains, closed the letters with a saving clause, leaving the business of the voyage to be conducted as they should think "most for the interest of the concerned." Hostile cruisers could not find in the instructions a line or a hint to excuse seizure, partly because drawn up for their perusal. Trained amid perils and forced to meet ever changing conditions, masters became adroit diplomats as well as skillful sailors and traders.

The embargo of 1807 and the subsequent non-intercourse acts oppressed New England. Exports from the United States fell from \$110,084,207 in 1807 to \$22,430,960 in 1808. On imports the duties paid at New London dropped from \$201,838 in 1807 to \$98,107 in 1808; \$58,417 in 1809, and \$22,343 in 1810. Our vessels lay idle and rotting. In New England the commercial distress was the more unbearable because the people well knew that the restrictive policy of the government was more injurious to them than to the nations at which it was aimed.

Of course the fortunes of our marine insurance companies withered with the failure of foreign trade. Even war rates, though oppressive to the shipper, fell below the losses of insurers. Claims for French spoliation and other unlawful seizures gradually took the place of solid assets in the hands of the companies.

After long endurance, when at length the Federal government was driven into war, our sailors, trained in the merchant marine, electrified friends and astounded foes by the splendor of their naval victories. On the ocean where she was supposed to rule without a rival England was humiliated and beaten. Till then both at home and abroad the flag of the Republic had symbolized little but immaturity. Our small navy in the first real trial of its mettle both cemented the wavering sentiment of nationality and gave to the people faith in their destiny.

To the sorrow of marine underwriters the peace of 1815 failed to bring a speedy revival of prosperity. Foreign trade improved haltingly. Relapses so interrupted the course of recovery that at times the observer could hardly tell whether the movement was forward or backward. In the case of a people full of energy, enterprise and resources, there could be no doubt as to the final outcome. The strong can work and wait, certain that good times are ahead. But many cannot wait. The passage across the depressions, always broad and deep and rough beyond expectation, strews the graveyards of commerce with the bones of the weak. Crippled by seizures and spoliation, our marine companies yielded to the strain. The Norwich was saved by changing to fire insurance in 1818. Seven years later the Hartford came forth from the shadows of the dark valley reincarnate in the Protection. The others passed away silently, leaving few traces from which their troublous story can be told. Thus ended the first dynasty of marine underwriters in Connecticut.

CHAPTER XLIII.

INSURANCE IN CONNECTICUT—Continued.

HE first incorporated insurance company in the state still exists, and in an age of countless changes has never departed from the simple plan of its founders. On the evening of December 29, 1794, a number of substantial citizens of Norwich met to consider plans for mutual protection against losses by fire. The old way of passing around the hat for the aid of the neighbor who had lost his house or barn, did not work fairly. The generous gave too much, but there were more who gave too little. At best the outcome was uncertain, and this gathering looked for something better.

On the 26th of January they met again. By-laws and a deed of settlement were approved. Each person joining the association agreed to pay on the sum insured for him a premium of one-half per cent. for the first year, one-third for the second and one-fourth thereafter. Profits were to be left in the treasury till they reached £2,000 (\$6,666.66), after which the surplus was to be divided annually on equitable terms. Each person insured to an amount not exceeding £100 was entitled to one vote, for an insurance of £200 to two votes, and above that sum to one vote for each £200, but no incorporation could have more than one vote by any way or means whatever. The post-Revolutionary generation of Americans had a great dread of corporations, and as law-makers, in granting charters where abuses were likely to arise, insisted upon strict limitations. Similar fears cropped out in dealing with them as associates.

In case a single loss exhausted the money or property in the treasury, the members were bound to contribute pro rata, not exceeding one per cent. on the amounts insured for each, to make up the deficiency.

In May, 1795, the association was incorporated by the name of the Mutual Assurance Company of the City of Norwich, on the basis of the "deed of settlement." The company issued policies only from the home office and through its agency in New London. At the annual meeting in 1814 the auditors reported that not only was the guaranty capital of £2,000 fully made up, but after appropriating \$1,054.27 to pay return premiums, a balance of \$450.93 still remained in the treasury, subject to the order of the directors.

Annual meetings were held in the court-house at Norwich Town till, in 1825, it was voted to hold them alternately in the two societies, beginning at Chelsea the following year.

In general the business has been prosperous. The insured are all known to the managers and to a large extent to each other. At any time a person of doubtful reputation would have found it very difficult to secure one of its contracts. Yet, although hedged in by safeguards, the company has passed through seasons of adversity. In 1844 it lost \$3,189 on nine policies, meeting the drain by borrowing \$1,800 from the Savings Society. Three years passed before the impairment of \$1,691 in the capital account was made good. Under the most careful management the business of fire insurance has from the outset been called to pass through seasons of calamity that set at defiance the laws of average. With the growth of population and wealth the recurrence of fiery seasons becomes more marked. Like certain comets astronomers know they must return, but when or whence the wisest cannot foretell.

Since 1838 the company has insured only buildings used exclusively for dwellings, and takes only \$1,000 on any one risk. Policy No. 1 is still in force on the house of the late Benjamin Huntington. The first eight policies were issued to Christopher Leffingwell. The gross assets of the company are about \$13,000 and the net about \$12,000. It has no desire to extend its business or make large accumulations.

The secretary has always been the executive officer. For many years he received an annual salary of \$60, and it now does not exceed \$200.

Zachariah Huntington was chosen secretary in 1794; Thomas Tracy, in 1800; Levi Huntington, in 1807; John Fanning, in 1812; Joseph Williams, in 1813; J. W. Kinney, in 1834; John T. Adams, in 1835; G. B. Ripley, in 1836; Burrell Lathrop, in 1839; Henry B. Tracy, in 1841, and Asa Backus, the present incumbent, in 1876.

An association very similar was organized in New Haven in 1801, by the name of the Mutual Assurance Company. Elizur Goodrich was chosen secretary and Simeon Baldwin, treasurer. It soon passed out of existence.

Mention has already been made of the Norwich Marine Insurance Company, chartered in 1803. Having found the business unprofitable its name in 1818 was changed by act of legislature to The Norwich Fire Insurance Company, and the capital was increased from \$50,000 to \$100,000, with the privilege of a further increase to not more than \$300,000.

The directors fixed the capital at \$100,000, of which fifteen per cent. was paid in cash and the rest in stock notes. Joseph Williams, as secretary, was the active executive officer prior to the abandonment of marine business, and filled the position till 1854. Presidents, selected for high standing in the community and changed often, were not expected to become familiar with the *technique*. Till near the end of Mr. Williams' administration the company rested content with a narrow field of operations. Both agents and risks were carefully selected. On the whole the returns on the actual cash investment of the stockholder proved highly satisfac-

tory. No attempt was made to lay by a surplus. As soon as a dollar reached the treasury it was looked upon as earned. No reserve was charged against it nor was such a charge required either by custom or law. When fortune smiled the directors met every few weeks to divide the balance on hand. No regularity as to time or amount governed the action of the board. Plenty followed famine, and famine plenty. Now stockholders rejoiced over abundant showers, and now lamented over withering droughts. But through both alike, every loss was met with scrupulous care. The company led off in limiting its insurance to seventy-five per cent. of property as valued. Single risks were restricted to \$5,000. It was once its boast that for thirty years it had not had a trial at law.

In June, 1849, the company was admitted into the state of New York. The stock had been raised to \$150,000. Of the assets about \$20,000 were invested in bank stocks in Norwich and Hartford; \$10,031 were reported as "cash on hand just received specially for investments;" \$340 represented for several years the supposed value of twenty-three shares of turnpike stock; and the balance consisted of secured notes. The business of 1849, though not large, began to reflect the results of a more enterprising policy. Premiums reached \$22,056.35 and interest \$1,204.20. In losses were paid \$11,270.38 and in dividends \$11,000. As reported the gross assets continued to barely touch \$150,000 till 1852, when they slightly overran the nominal capital.

Augustus Brewster was elected president in 1854, and Ebenezer Learned, Jr., secretary. Mr. Brewster, a man of force, was also president of the Norwich and Worcester Railroad. Mr. Learned graduated at Yale College in 1831, and was a lawyer.

In 1856 the stock notes were mostly taken up and the proceeds invested in securities. The capital was increased to \$200,000 in 1860, and to \$300,000 in 1864. Its losses in the Chicago fire of October, 1871, so largely exceeded its assets that no attempt was made to continue its existence, although it was the oldest stock fire company in the state and had always maintained a high reputation.

Presidents were Samuel Woodbridge, Simeon Thomas, 1807; Thomas Lathrop, 1810; Ebenezer Huntington, 1813; David Ripley, 1819; Charles P. Huntington, 1820; John Buswell, 1825; George L. Perkins, 1830; William Williams, Jr., 1836; Lewis Hyde, 1845; Charles Johnson, 1846; John G. Huntington, 1849; Samuel Morgan, 1853; Augustus Brewster, 1854, and Ebenezer Learned, 1864. Secretaries, Shubael Breed, Joseph Williams, 1814; Ebenezer Learned, 1854; John L. Dennison, 1864, and W. T. Steere, 1868.

THE HARTFORD FIRE INSURANCE COMPANY.

The Hartford Fire Insurance Company was incorporated in 1810, and since the Chicago fire of 1871, has ranked as the oldest stock insurance company in the state. The capital was placed at \$150,000 with the privilege of enlargement to \$250,000, divided into shares of fifty dollars each. Subscribers were required to pay five per cent. within thirty days from the passage of the act, and five per cent. more within sixty days. For the remaining ninety per cent. they were allowed to give notes secured by mortgage on real estate, or by satisfactory indorsements, payable thirty days after demand by the president and directors.

The subscribers met on the 27th of June at the inn of Amos Ransom, and organized by electing as directors Nathaniel Terry, Nathaniel Patten, David Watkinson, Daniel Buck, Thomas Glover, Thomas K. Brace, James H. Wells, Ward Woodbridge, and Henry Hudson. General Nathaniel Terry was chosen president, and Walter Mitchell appointed secretary.

In due time fifteen thousand dollars reached the treasury from cash payments on capital account. How to invest funds with a view both to safety and productiveness was then quite a novel question. Few were confronted with the difficulty, for the great majority had no surplus. Prosperous farmers bought more land or loaned to neighbors on mortgage. Prosperous merchants extended their trade. Of the well-nigh uncounted millions of securities now bought and sold at the centres of exchange, all but a tenuous fraction rest upon forms of enterprise then unknown. Brokers confined their dealings mostly to bonds of the United States and the several states, which moved sluggishly. Cities had not acquired the art of piling up big debts. The spirit of speculation found food by rushing singly and in widely ramifying combinations into dealings in wild lands.

At Hartford the Hartford Bank, established in 1792, loomed high amid the general barenness. At this time its capital exceeded half a million, and already it had won a reputation for strength that has never been clouded. Hence the board naturally turned to the bank. November 14, 1810, they voted that Nathaniel Terry and Nathaniel Patten be a committee to obtain by subscription or purchase, at discretion, a number of shares, not exceeding forty, in the stock of the Hartford Bank, and that the pecuniary funds of the company be transferred to them for the purpose. "Also, that they obtain a loan from said bank of such an amount as they shall judge requisite to effect said purpose."

As the par of the shares was then \$400 and they commanded a premium of four per cent., the committee would have needed \$16,640 had they decided to go to the limit allowed by the vote. November 27th, \$16,224 were placed to their credit, the excess over \$15,000 having been borrowed. But the matter was too vital for hurried action. After duly weighing the pros and cons, the committee on the 13th of December bought fourteen shares at \$5,824, returning the balance to the treasury. October 29, 1817, the investment had grown to one hundred shares, bought at a total cost of \$43,684.25. The company now holds five hundred and fifty-six shares of the bank stock (par reduced to 100) representing a cost of \$63,962.75, considerably less than one-fifth of the dividends received upon it.

In 1810 fire insurance was supposed to be a matter of pure chance. No attempt had been made to generalize the laws underlying the business. Indeed the existence of such laws was unsuspected, except possibly by some deep thinker, who passed for a visionary. Facts were ungathered. Hardly a contribution had been made to the literature of the subject, which now loads the shelves of large libraries. Amid prevalent darkness pioneers could only experiment. Hence charges to the insured often bore no close or fair ratio to the cost. Some paid too little, and others too much. The rates must be low enough to attract patrons, and high enough to pay losses.

An address read before a meeting of agents held at Niagara Falls, June 9, 1885, by Charles B. Whiting, formerly secretary of the Hartford, and later president of the Orient, contains much curious information respecting this and other companies of the city.

Policy No. 1 of the Hartford covered a builder's risk of \$4,000 for three months at twelve and one-half cents. No. 5 took \$11,000 on a gin distillery at one and one-fourth per annum. No. 21, \$20,000 on a stock of dry-goods at seventy-five cents. No. 22, \$20,000 on a stock of hardware at twenty-five cents. Within a few weeks from birth the company was taking single risks thirty-three per cent. in excess of its entire cash assets.

The hazard was less than it seems, for the character of the insured, though unmentioned in the policy, formed one of the most important elements in the con-

tract. Every risk was accompanied by a survey of the property, and the written representations of the owner had the force of a guaranty. Persons desiring insurance solicited it as a privilege from the officers of the company, and, being required to carry themselves a material part of the hazard, the two parties to the agreement became partners in the venture. A man of bad reputation found difficulty in obtaining a policy on any terms. At first no commission was paid to agents, their compensation coming from the survey and policy fee, which varied with the labor, and was collected from the assured.

Then, too, the population was homogeneous and almost entirely of English parentage. The spirit of Puritanism still pervaded New England. Branded often by latter-day critics as cruel and ridiculed as narrow, it is admitted to have encouraged the growth of the rugged virtues. What will be the final product of the inflow and mixture of many races no one can foretell. Few will deny, however, that at the present stage of progress, the process has increased the perils of underwriting.

For nine months ended April, 1811, premiums were \$2,784.51; interest and dividends, \$638.53, making total income \$3,423.04. The first full fiscal year ended April, 1812, with premiums of \$3,542.25, and \$956.03 interest, a total of \$4,498.28. For the year ended April, 1820, the premiums were \$5,258.48, and the interest \$2,808.05; total, \$8,066.53.

Why did the company grow so slowly during the first decade? Because money-making was a secondary consideration. The gathering at Ransom's Inn was made up of men of affairs, owners of stores, merchandise, shops and homes. Occasional fires fell crushingly upon sufferers. In an hour one might see the slow savings of a life—the support of age, the provision for children—swept away forever. Like the sword of Damocles, the threat hung by a thread. Nearly every one in trade or in the workshop had his property collected in one spot, liable to utter destruction in a single catastrophe. A sense of ever-present peril, a desire to avert the worst effects of calamity from the immediate sufferer by distributing the loss through the community, and a willingness to contribute fairly to the common fund, brought the company into existence. Doubtless the subscribers hoped to make a profit. Money set aside to guarantee the performance of hazardous contracts, entitled depositors to more than the ordinary rate of interest. Still dividends above the current rate were rather a matter of hope than faith. Not till long after the venture was launched and the hands that laid the keel had turned to dust, did its commercial possibilities fairly dawn upon fortunate holders of the stock.

Again, as insurance was a novelty, the unappreciative held aloof on the theory that ways good enough for their grandfathers were good enough for them. In every thing the mind was much less receptive of new ideas then than now. The pioneers did a great deal of missionary work in uprooting prejudice and making converts to the doctrine that insurance is both a privilege and a duty.

In planting agencies the board did not begin near home, or in large cities, but in small and remote towns. In 1811 Ebenezer F. Norton, of Canandaigua, N. Y., was commissioned to take insurance and countersign policies. In June, 1814, Ephraim Kingsbury was appointed at Haverhill, Mass., and, in February, 1816, Hooker and Brewster, at Middlebury, Vt., with authority to insure "houses, furniture, stores, merchandise and barns only," they to retain fifty cents on each policy. October, 1819, Hooker Leavitt was appointed for Greenfield, Mass., and, in addition to the charge for policies, was allowed five per cent. on premiums received. In 1820, James S. Seymour was appointed at Auburn, N. Y., and Samuel Cows at Cleveland, Ohio.

For ten years the company was, apparently, experimenting with the agency sys-

tem. In 1821 it entered upon a much more vigorous policy, appointing Anson G. Phelps at New York city, George Wales at Boston, Roger S. Skinner at New Haven, and others elsewhere. Thenceforth the net-work was rapidly extended. The question of entering a town ceased to be a matter of grave deliberation, and was followed by the question, Who is the best man to represent us? In July, 1822, the board voted that the agents at New Haven, Canandaigua and Middlebury "be allowed ten per cent. commission on all premiums received by them exceeding one thousand dollars for any one year, commencing the current year." Other contracts continued at five per cent., and numbers were afterwards made at the same rate.

Rigid ideas then prevailed respecting the use of corporate funds except for strictly corporate purposes. Still, the rule was now and then broken. November 17, 1818, the board voted to five persons gratuities amounting to sixty dollars, "in consideration of their active, laudable and successful exertions in extinguishing the fire in this city on the evening of the 2nd November inst." November 30, 1819, they voted that twenty dollars be paid by the company towards procuring a watch for the city. The watch, developed later into the police system, was at first supported by voluntary contributions, though its duties and powers were defined by the common council.

In June, 1822, the board ratified the contract entered into by Roger S. Skinner, agent at New Haven, with a committee of the New Haven Fire Insurance Company, to indemnify it against all loss and damage by fire in consequence of any outstanding policy. They also directed the president and secretary to execute a bond in the penal sum of \$150,000 for the faithful execution of the contract.

Secretary Mitchell received an annual salary of \$300, with an allowance of \$30 for rent, the business of the company being transacted in his private office, till 1813, when it was raised to \$330 from January. The next year it was again raised to \$360, and by 1824 it had mounted upward to \$460, with an allowance of \$55 for office rent and stationery, but this was high water-mark, for in 1830 it was cut down to \$450, in 1831 to \$300, and in 1832 to \$200.

He had no assistance at the desk till February, 1829, when Lewis Bliss was appointed clerk. The star of the clerk waxed as that of the secretary waned, for within three months he was sent to Georgia to adjust losses occurring in the Augusta and Savannah agencies, with authority to draw drafts on the company, payable sixty days from time of proof. His salary, too, beginning at \$500, was increased to \$600 in 1832, and to \$800 in 1835.

President Terry received no salary till May 31, 1823, when \$100 was voted him for services during the previous six months. It continued at the rate of \$200 per annum till May, 1835, when for the previous half year he was voted an additional hundred. No salaries were fixed in advance, but were voted semi-annually, for work already performed.

Not a loss occurred the first year, and for the next three they amounted, all told, to \$421.84 only. Again, from April, 1820, to November, 1823, they amounted to but \$66.25. The year ended November, 1827, proved over five times as disastrous as the worst that preceded, the losses reaching \$37,567.67, but this was a season of happiness compared with 1829, when they rose to \$89,469.59.

For the twenty years ended April, 1830, total income was \$241,297.29, made up of premiums \$219,640.97, and net interest \$21,656.32. Disbursements, on the other hand, reached \$327,818.47, made up of losses, \$175,926.65; expenses, \$29,791.91; and dividends, \$122,100. At this time the capital was impaired \$42,907.14. May 5, 1829, the board designated Eliphalet Terry and David Watkinson a committee to effect a loan at the Hartford Bank for an amount not exceeding \$60,000, and to

pledge as security the stock of the company in the bank and the stock notes for the third installment. At this juncture the shareholders, over and above the securities in the treasury, were liable for about fifteen per cent. on their stock notes, barely to wipe out the deficiency. Against this minus quantity, owners, endowed with a faculty for seeing the bright side, might put as an offset the good-will and established business of the company.

All our early insurance companies made the deadly mistake of dividing profits in periods of prosperity, reserving little or nothing to meet the drains of adversity. Only two or three survived the wounds inflicted by the policy. These were saved in several crises by the heroism of the directors, who, by guaranties, threw their private fortunes into the breach.

Growing dissatisfaction came to a head in 1835, when the official connection of General Terry and Mr. Mitchell with the company was brought to an end. General Nathaniel Terry was born at Enfield, Conn., January 30, 1768; graduated at Yale College in 1786; studied law; moved to Hartford, and was long a leading figure in the state. He represented the town twelve sessions in the General Assembly; was judge of the county court, 1807-9; member of the Fifteenth Congress; of the Constitutional Convention of 1818, and mayor of the city, 1824-31. He was president of the Hartford Bank, 1819-1828. He married, in 1798, Catharine, daughter of Gen. Jeremiah Wadsworth, of whom a sketch has been given. General Terry commanded the governor's foot-guard from 1802 to 1813. Six feet and four inches tall, erect and imperious, he appeared in uniform the born soldier. On parade or in debate he was at home. In business, however, he was much less successful. He died at New Haven, June 14, 1844. Gen. Alfred H. Terry, captor of Fort Fisher, was a grandson.

Walter Mitchell is represented as somewhat heavy in person and intellect. At first parties desiring insurance were compelled to seek the broker. Competition soon changed the relations of the parties to the contract, but Mr. Mitchell did not drop with alacrity into new ways. It is said of him that he was averse to doing to-day what could conveniently be put off till to-morrow.

In June, 1835, Eliphalet Terry became president, James Bolles secretary, and in July, C. C. Lyman, assistant secretary. Mr. Lyman held the place forty-three years, refusing all offers of promotion. Six months of remarkable prosperity followed the installation of the new management, and, in December, a supper was given to celebrate the coming dividend, which, however, was doomed to disappear in smoke, for the next day came news of a great fire in New York city. The losses of the company reached \$84,973.34, but the crisis was met with a courage that turned a calamity into a blessing, bringing at once a large, permanent and profitable enlargement to the volume of its business. Mr. Terry, having pledged his own property to the Hartford Bank as security for drafts to be drawn, with Mr. Bolles, started in a sleigh, with the mercury below zero, to grapple in person with the issue. On arriving in the city, they found most of the insurance companies bankrupt, and a state of despondency bordering on panic. Property-owners outside of the burned district felt that they were no longer protected, while the actual sufferers looked for small dividends on their policies. Mr. Terry announced that he would pay in full all losses of the Hartford, and take new insurance. The promise—the first sign of cheer in the gloom—was fulfilled to the letter. Business poured in at highly remunerative rates, and the deep gap in its assets was soon refilled. Premiums rose from \$19,260.15 for six months ended April, 1835, to \$97,841.75 for the corresponding term the next year. The day of small things had passed. Thenceforth, both for good and for ill, the annual operations of the company have been expressed in large and ever-swelling figures.

Dividends were omitted from November, 1829, till November, 1841, inclusive, and again from April, 1846, to April, 1853, inclusive.

Between July 19, 1845, and May 18, 1849, fires occurred at New York city, St. John's, N. F., Nantucket, Albany, and St. Louis, which cost the Hartford \$69,691.30, \$84,014.75, \$54,521.65, \$57,637.43, and \$58,676.83, respectively, making a total of \$324,577.96, in addition to ordinary losses. St. John's was burned, June 9, 1846. Mr. Bolles hastened thither and made settlements by giving the notes of the company. Landing from the steamer at Boston on the way home, he was informed of the fire in Nantucket, and there repeated the dreary routine. Meanwhile notes given for unpaid installments on stock no longer sufficed to uphold the credit of the company. To avert bankruptcy directors freely indorsed its paper. Some signed their names expecting that the necessity of meeting the obligation would ultimately fall upon them personally. Yet in the absence of sustaining faith such was the *esprit de corps* that they took the risk. The earnestness of a few moved the mass.

In 1850, when the fiery epoch already mentioned drew to a close, after deducting unpaid losses and claims, the company was able to muster \$158,441.58 in assets, of which \$87,000 consisted of stock notes. Among the investments the supporting column was four hundred and fifty-three shares of Hartford Bank stock, estimated at \$49,589.75. On the other hand, one hundred and twenty shares of Connecticut River Company stock, valued at \$12,000, and ninety-five shares of Hartford, Providence and Fishkill Railroad, valued at \$9,500, were made to carry a much heavier load than they could rightfully bear.

At the annual meeting, in 1849, Eliphalet Terry declined a re-election on account of ill health, and Hezekiah Huntington was made president. Born at Enfield, December 25, 1776, Mr. Terry came to Hartford at the age of nineteen. At the death of his employer he succeeded to the business, and taking into partnership his brother Roderick, built up the house of E. & R. Terry, the leading Hartford firm in the West India trade, and one of the largest wholesale grocery houses in the Connecticut Valley. Their store was located at the corner of North Main street and Albany avenue. He died July 8, 1849.

By an act amending the charter passed in 1853, the company was authorized to increase the capital to an amount not exceeding \$300,000, and to change the shares from \$50 to \$100 each. Both amendments were accepted. The amendment of 1857 authorized an increase to \$1,000,000, and the amendment of 1865 to \$3,000,000. At a special meeting, held February 2, 1854, the stockholders voted unanimously to raise the capital to \$300,000. Subscribers for the additional shares agreed to pay sixty per cent. in cash, or by notes, dated March 1, 1854, payable in one year with interest, and the other forty per cent. in the regulation stock-notes, which had not yet fallen into discredit. Still the prosperity of the company was such that these were rapidly extinguished. July 14, 1857, profits in the treasury were capitalized to the extent of \$200,000, making the capital \$500,000, which by the same process was lifted to a round million in June, 1864.

A long period of exemption from notable disasters was followed in swift succession by fires at Augusta, Maine, September 16, 1865; at Portland, July 4, 1866, and at Vicksburg, December 24, 1866, involving losses of \$57,022.16, \$151,288.31, and \$55,077.55 respectively. But the company was now much better prepared to withstand the strain, and even after the extraordinary payments at Portland and Vicksburg, was able to add over \$200,000 to its assets from the business of 1866.

After an incumbency of fifteen years Mr. Huntington retired in 1864. He was born October 28, 1795, at Suffield, Conn., whence the family moved to Hartford in

1813. Alone and in partnership with his brother, Frank J. Huntington, he published various works, including the Greek text-books of Prof. Sophocles, at a time when this was one of the leading activities of the city. He died February 20, 1865. His father, also named Hezekiah, moved from Tolland to Suffield. In 1806 Mr. Jefferson appointed him United States Attorney for Connecticut, and he filled the office till 1829.

T. C. Allyn succeeded Mr. Huntington. His term was short, for in May, 1867, he resigned and went to New York city, where he formed a partnership with Ezra White, who had long been local agent of the company. The firm also managed the American branch of the North British and Mercantile Insurance Company of London and Edinburgh.

The company had grown to such proportions that the directors now, for the first time, went outside of the city to seek a president, and the choice fell upon George L. Chase, assistant general agent of the western department. Mr. Chase engaged in insurance at the age of nineteen, and in early manhood broadened his experience by serving as assistant superintendent and superintendent of the Central Ohio Railroad, re-entering the insurance field in 1860. Although born in Massachusetts, Mr. Chase had acquired a liking for western ways, and hence, with some hesitation, accepted the place in 1867. His previous connection had made him familiar with the affairs of the company, and besides he brought to the new position a close acquaintance with the men and methods of a great and growing region.

From the middle of the century the Hartford pushed westward and southward with great vigor, having the headquarters of a new department at Columbus, Ohio, under charge of Demas Adams, appointed in 1852, and later of David Alexander, appointed in October, 1854. When the Rebellion cut off relations with the South the western office was transferred to Chicago, where G. F. Bissell succeeded Alexander in 1863, and at the end of the war the loss of receipts from the Southern states had nearly been made good by extensions in the Northwest.

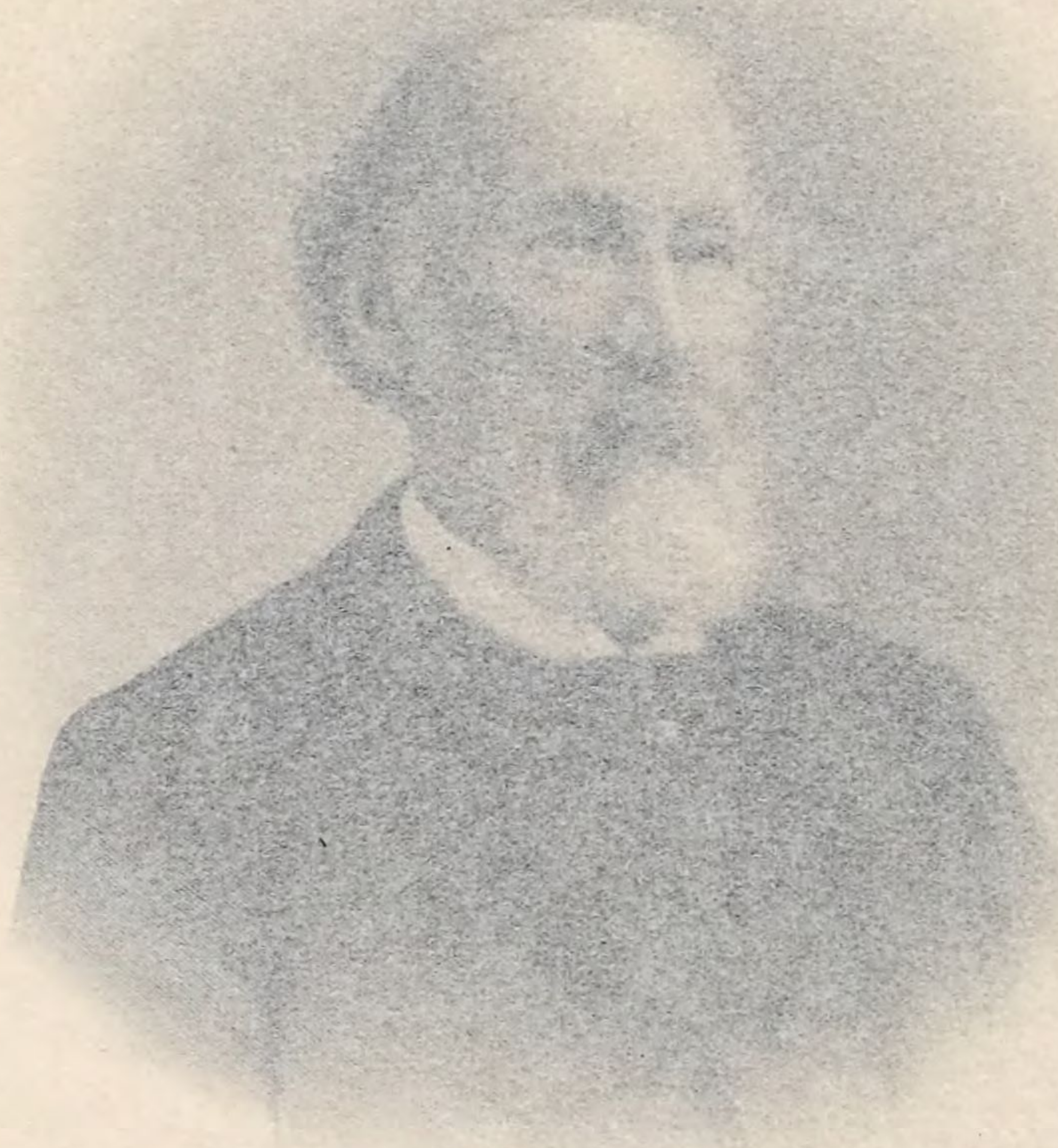
With the increase of population further subdivisions became expedient. In 1871 the Pacific Coast department was organized, and in 1889 the Metropolitan, made up of parts of New York state, Long Island and New Jersey.

The advent of Mr. Chase marks the beginning of a more aggressive era, and figures afford the most trustworthy measure of results. At the end of December, 1867, the assets of the company were \$2,026,220.79; liabilities: capital, \$1,000,000; unpaid losses, \$167,350.23; unpaid dividends, \$144; reinsurance reserve at an average of fifty per cent. of unexpired premiums, \$831,975.87; total, \$1,999,476.10, leaving a net surplus of \$26,744.69.

The income for the year reached \$1,673,582.69, of which the main sources were premiums, \$1,559,040.09, and dividends and interest \$102,688.07.

The new administration attempted nothing sensational or revolutionary, but simply crowded the established policy with more vigor. It aimed to have an agency at every settlement in the United States and Canada, where income bid fair to exceed outgo, thus reinforcing the streams from large cities by contributions from many rivulets. Its age, reputation and resources attracted everywhere agents of the highest character and business of the best quality.

A season of long, unbroken sunshine was cruelly interrupted by the Chicago fire of October, 1871, coming like a hurricane on a still summer day. In a few hours property valued at \$150,000,000 was destroyed, and while the embers were still hot, it was known at the home office that the losses of the Hartford would reach nearly \$2,000,000. So many companies were broken by the catastrophe that a flood of



Geo. L. Chase

1813. Alford and in partnership with his brother, Frank J. Huntington, he published various works, including the Greek text books of Prof. Sophocles, at a time when this was one of the leading industries of the city. He died February 20, 1863. His father, also named David, had moved from Tolland to Suffield. In 1806 Mr. Jefferson appointed him Public State Attorney for Connecticut, and he filled the office till 1822.

P. C. Chase succeeded Mr. Huntington. His term was short, for in May, 1867, he resigned and went to New York city where he formed a partnership with Ezra White, who was the long time local agent of the company. The firm also managed the American branch of the London and Lancashire and Mercantile Insurance Company of London and Edinburgh.

The next year, 1868, was in such proportions that the directors now, for the first time, began looking for a new president, and the choice fell upon George L. Chase, who had been in the western department. Mr. Chase engaged in insurance work from an early age, and in early manhood broadened his experience by serving as a clerk, a correspondent and superintendent of the Central Ohio Railroad, of which he was the first president in 1863. Although born in Massachusetts, Mr. Chase had spent much of his life on the western ways, and hence, with some hesitation, accepted the office in 1868. His previous connection had made him familiar with the habits of the western people, and besides he brought to the new position a close acquaintance with the spirit and methods of a great and growing region.

From the middle of the century the Hartford pushed westward and southward with great vigor, becoming the headquarters of a new department at Columbus, Ohio, under charge of James Adams, appointed in 1852, and later of David Alexander, appointed in 1864. When the Rebellion cut off relations with the South the western office was transferred to Chicago, where G. F. Bissell succeeded Alexander in 1865, and at the end of the war the loss of receipts from the Southern states had nearly been made good by extensions in the Northwest.

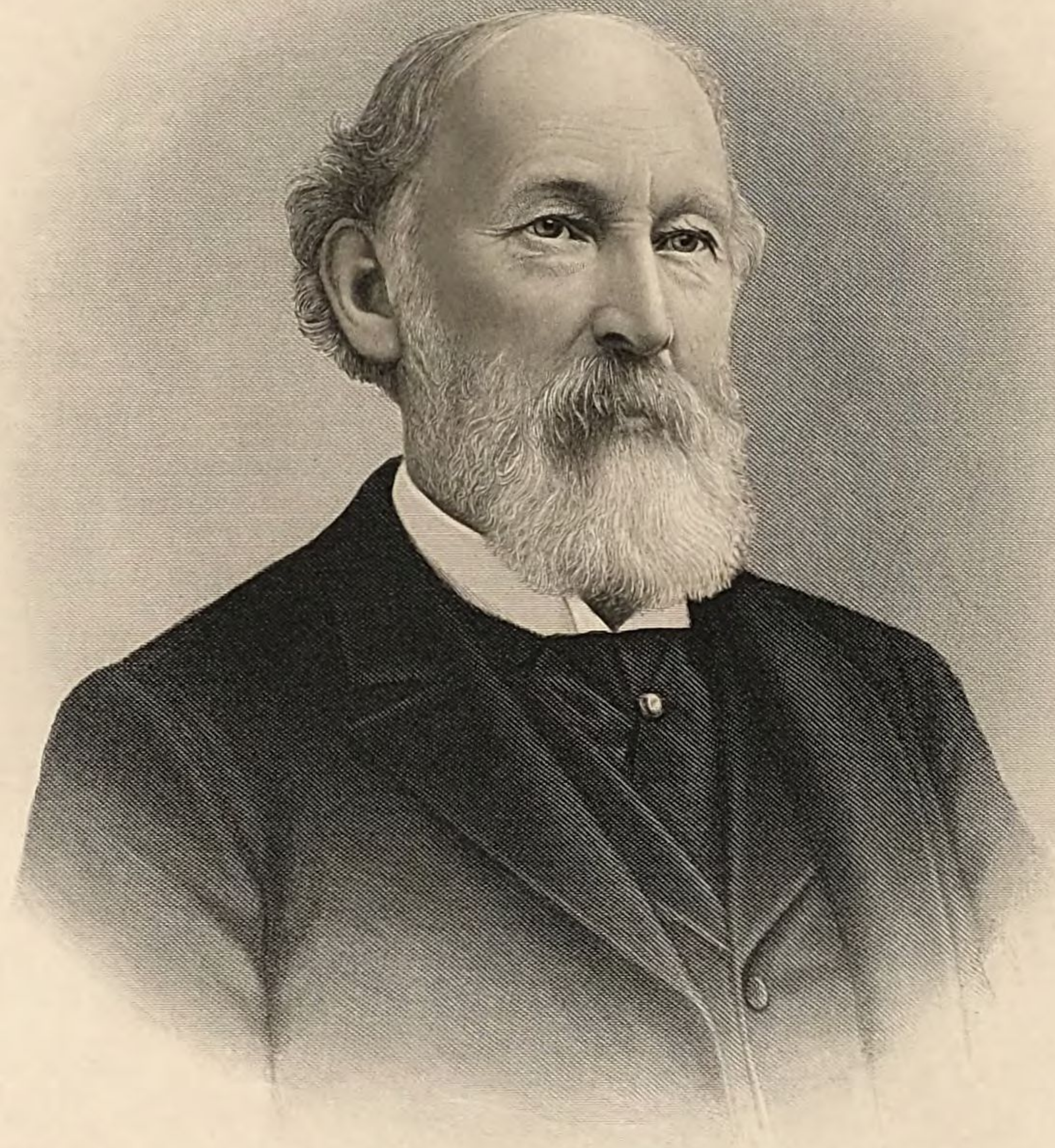
With the increase of population further subdivisions became expedient. In 1875 the Eastern and Southern department was organized, and in 1889 the Metropolitan, made up of parts of New York state, Long Island and New Jersey.

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Geo. L. Chase

Wm. L. G. 1890

securities must fall upon the market, depressing prices and rendering the fulfillment of contracts still more difficult. In times of gloom the managers always turned to the Hartford Bank as an unfailing refuge. To an appeal for help the bank now replied that it would aid to the full extent of its resources. The courage of both—the one struggling for existence and the other not less for the honor of the city than to save an old comrade—seems almost a matter of course, as realities fade in the distance, but then amid the wreckage lifted the actors out of the world of commonplace into the realm of the heroic. The Connecticut Mutual Life also loaned the company half a million. The Hartford settled every loss in full, paying out \$1,968,225. A bare million—a sum insufficient to meet the requirements of the re-insurance fund—was left in the treasury. By a vote of the directors the capital was reduced to \$500,000, and at once increased to \$1,000,000 by fresh subscriptions, the rights to subscribe commanding a premium of \$85 a share in the darkest days of the disaster. Thirteen months later, November 9, 1872, it incurred losses amounting to \$485,356 at the Boston fire, but met the drain out of current receipts.

The Hartford Fire owned a block of stock in the Ocean National Bank of New York city, which, in December, 1871, passed into the hands of Theodore M. Davis as receiver. It had already been looted by burglars and badly burned by the patronage of William M. Tweed and his associates. January 19, 1872, the receiver issued a printed circular in which the excess of resources over all liabilities, including the amount due depositors, was estimated at \$587,313.02. He stated that with good management and good luck the assets ought to yield a much larger sum. The only cloud then apparent on the horizon grew out of the suits for the recovery of the value of certain United States bonds, left in the bank for safe-keeping and carried off by burglars in 1869. In the event that those cases were decided adversely, he thought the above surplus might be diminished by \$200,000. The bank won these suits, but before the trial, by way of caution to the stockholders not to sacrifice their interests, in a circular dated July 1, 1873, the receiver virtually promised a dividend of thirty-four (34) per cent. to stockholders, after discharging all obligations to depositors.

July 1, 1875, the receiver reported the assets remaining in his hands, "uncollected and not charged off as worthless," at \$1,302,511.81. He also held the Portage Lake Canal Company debt, amounting with interest to \$560,000, and expressed the conviction that this debt was secure and would ultimately be collected. At the same time the total obligations of the bank were given as \$390,395.63 only.

Affairs drifted along for eighteen months more, when the shareholders were rudely awakened from dreams of prospective dividends by a printed notice, dated January 25, 1877, announcing that an assessment of forty (40) per cent. had been levied upon them to pay off the creditors. The receiver, with his customary disposition to make things pleasant, intimated that the comptroller of the currency was at the same time reserving for the stockholders assets which would ultimately yield a large sum, but which could be sold then only at heavy sacrifice. He declared it to be a part of the plan to collect upon these as soon as possible and to apply the proceeds to their benefit.

The circular awakened no small degree of astonishment and wrath in Eastern Connecticut, where for some reason the bank shares had been a favorite investment. A promised dividend of nearly sixty per cent. had dwindled to thirty-four, only to be transmuted further on into an assessment of forty. A call was sent out to interested parties to meet at the office of the Hartford Fire. Representative men came together from several counties to consider the matter.

Mr. Chase advocated the most vigorous and aggressive resistance to the demand until the facts of the receivership could be unearthed and laid bare. He took the position that on the ground of sound public policy it was just as much the duty of the executive officers of insurance companies and savings banks to resist unjust or fraudulent claims as to pay such as were just. He urged that all unite in employing the best talent to trace the assets from the vaults of the bank into the pockets whither they had disappeared, and if necessary to assault the comptroller of the currency in his stronghold to learn why through thick and thin he upheld an appointee who by his own circulars was convicted of playing high-handed tricks with his trust.

The earnest appeal of Mr. Chase brought several to the support of the plan, but the times discouraged heroic action. Just then the country was suffering the severest strain of the long depression that began with the panic of 1873. The air, charged with timidity and distrust, overpowered resolution. All appreciated the smokiness of the record as developed in the successive circulars of the receiver, but the majority saw no hopeful method of redress. The assessments were paid with much the same feelings that the belated traveler on the lonely moor surrenders his purse at the muzzle of the pistol.

Nearly a quarter of a century has passed since the comptroller of the currency and his appointee took charge of assets estimated to exceed all liabilities by over half a million of dollars. That large sum has vanished. The bottomless pit has swallowed four hundred thousand more, wrung by arbitrary orders from shareholders, not a few of them widows and orphans. Out of all the property not a cent has been paid to the owners of residuary interests.

Perhaps undue space has been given to this episode. The general adoption of the course advocated in this instance by Mr. Chase would go far to prevent such scandals and, where failures have occurred, to secure a just distribution of the salvage.

During Walter Mitchell's connection with the company the business was carried on in his law office on the site now occupied by the *Courant* building. In 1835, its rooms were moved one door eastward. In 1854, the company took quarters on Main street, north of Pratt, and with one more change in the interim removed to its own building, at the corner of Pearl and Trumbull, in 1870. The structure built of Quincy granite, having a frontage of sixty and a depth of one hundred feet, and rising four stories above the basement, served its purposes for twenty-six years. To meet the needs of a business that has grown far more rapidly than either officers or directors deemed possible a quarter of a century ago, the company in 1896-7 built an addition forty-four by seventy-two feet, six stories high, with a front also of Quincy granite. The old part was raised one story and both are surmounted by a continuous fire-proof roof, supported by steel beams and girders. By the removal of the division-wall the first floor is thrown into a single room, sixty-four by seventy feet. Here the main clerical work of the company is performed under the eyes of the officers. The new part is fire-proof, and the security of the old has been greatly increased. In the rear of the office, besides a large room for private consultations, is an additional fire-proof vault, sixteen by twenty-four and seventeen feet high, for the storage of books and valuable documents. The upper floors are rented for offices and bachelor apartments.

Out of profits a stock dividend of twenty-five per cent. was declared in 1877, raising the capital to \$1,250,000. At that point it has since remained, all gains going to swell the surplus. Thus far the officers, supported by a conservative directory, have stubbornly resisted all attempts to increase the stock-liability.

The successors of James G. Bolles in the secretaryship have been Charles Taylor,

1850-2; A. F. Wilmarth, 1852 (for six months); Caleb B. Bowers, 1853-July 1, 1858; Timothy C. Allyn, August 5, 1858-June 2, 1864; George M. Coit, June 2, 1864-February 1, 1870; John D. Browne, February 1, 1870-November 1, 1880; Charles B. Whiting, November 20, 1880-June 1, 1886; Philander C. Royce, since June 1, 1886.

Mr. Wilmarth was afterwards vice-president of the Home of New York. Mr. Bowers was president of the City and the Putnam, both of Hartford, and thence moved to New Haven. T. C. Allyn was promoted to the presidency. Mr. Coit left to represent the company in New York city, and later became assistant-manager of the Royal of Liverpool. Mr. Browne resigned to take the presidency of the Connecticut Fire, and Mr. Whiting to take the presidency of the Orient.

Christopher C. Lyman, appointed a clerk July 20, 1835, and assistant-secretary in 1840, filled the place till June 1, 1878, having charge of the bookkeeping department. After his death the position of assistant-secretary remained vacant till the appointment of Philander C. Royce, June 23, 1881. Mr. Royce was born of New England parentage in Plainfield, Ill., in 1838; graduated at Knox College in 1860; taught till 1866, when he entered the insurance field, first as local and later as special agent; served in the western department of the Hartford Fire Insurance Company, from May, 1872, till August, 1876; thence as secretary of the Girard Fire and Marine of Philadelphia, till in 1881 he returned to the Hartford Fire, where he has since remained, having been made secretary in 1886.

Thomas Turnbull succeeded Mr. Royce as assistant-secretary, June 11, 1886. Born in Scotland in 1834, and richly endowed with the sturdy qualities of the Scotch character, he came to America in 1852, and engaged in the wholesale tea trade in Philadelphia and New York. He was special agent of the Niagara Fire from 1869 till 1876, when he became general agent of the Hartford Fire in New York state, holding the position till 1886, when he was called, as above, to the home office.

Charles E. Chase, son of the president, born at Dubuque, Ia., March 29, 1857, having graduated at the Hartford High School in 1876, the next year entered the service of the company, and for efficiency was made second assistant-secretary July 1, 1890.

Cofran & Bissell manage the western department from Chicago, H. K. Belden the Pacific department from San Francisco, and Young & Hodges the Metropolitan department from New York city.

On the first of January, 1897, the gross assets of the company were \$10,004,697.55, and the net surplus, after deducting reserve for reinsurance and all unsettled claims, \$3,264,392.15.

The small capital and large surplus of the Hartford give it an enormous advantage in the struggle for existence. Income from assets alone suffices to pay dividends that ought to satisfy the most exacting shareholder. All the profits from the business in seasons of general prosperity can, if needful, be added to the reserves to meet the drains which recur at irregular intervals, but with unerring certainty.

THE NEW HAVEN FIRE INSURANCE COMPANY.

The New Haven Fire Insurance Company, with a nominal capital of \$100,000, was incorporated in 1813. Presidents were: Isaac Tomlinson, 1813; Charles Denison, 1818; Simeon Baldwin, 1820. Secretaries: John H. Lynde, 1813; William Connor, 1818; Roger S. Skinner, 1820. In 1822 Samuel Ward, Harvey Sanford and L. E. Wales were appointed a committee to negotiate a contract with the Hartford Fire Insurance Company to assume its outstanding risks. Mr. Skinner, the secretary, was also agent of the Hartford, and hence acted for both parties. The

arrangement was completed in June, the Hartford giving a bond of indemnity in the penal sum of \$150,000. The terms of the contract were not spread on the record, but the penalty of the bond probably equalled the entire amount at risk, since the sum paid for reinsurance made no perceptible addition to the current receipts of the Hartford. The charter was revoked the same year.

THE MIDDLETOWN FIRE INSURANCE COMPANY.

The Middletown Fire Insurance Company was incorporated in May, 1813, with a capital of \$150,000, to be paid in the customary way. The first board of directors consisted of Elijah Hubbard, John R. Watkinson, Samuel Wetmore, Joseph W. Alsop, Josiah Williams, Daniel Rand, and Samuel Gill.

Elijah Hubbard was elected president, and Thomas Hubbard, secretary. Jonathan Barnes, Jr., soon succeeded Thomas Hubbard. The company ran along half a dozen years, making a feeble show of life, and then passed out of existence. Its outstanding risks were assumed, September 25, 1819, by the Ætna of Hartford, which executed a bond in the penal sum of \$200,000 to save it harmless.

CHAPTER XLIV.

INSURANCE IN CONNECTICUT—*Continued.*

THE ÆTNA INSURANCE COMPANY (HARTFORD).



WALTER MITCHELL, first secretary and factotum of the Hartford Fire, lived in Wethersfield, a village three or four miles south of the city. In the early days every resident desiring a policy had to seek him, and at hours to suit his convenience. The road over a clayey soil was frequently so bad that the trip to Wethersfield took more time than a trip to Springfield or New Haven does now. He had a way of closing his office at three or four o'clock in the afternoon, and on Saturdays much earlier. According to current tradition merchants, often inconvenienced by the daily habits of Mr. Mitchell, resolved to flank his position by forming a new company. Hence originated the conception of the Ætna.

The company was incorporated in May, 1819. The capital was placed at \$150,000, with the privilege of increase to any further sum not exceeding \$500,000. Subscribers were required to pay within thirty days after the first meeting of the corporation five per cent., within sixty days five per cent. more, and the remaining ninety per cent. either in mortgages on real estate, or indorsed promissory notes, approved by the president and directors and payable thirty days after demand. Each stockholder was entitled to one vote for every share up to fifty, and there his voting power came abruptly to an end. While both corporate and personal liability was limited to the investment, it was with the reservation that "for misconduct or fraud, the person guilty thereof shall be personally liable to said corporation, or to the insured, as the case may be."

At the first meeting of the stockholders held June 15, 1819, at Morgan's Coffee House, the following directors were chosen: Thomas K. Brace, Thomas Belden, Samuel Tudor, Jr., Henry Kilbourn, Eliphalet Averill, Henry Seymour, Griffin Stedman, Gaius Lyman, Judah Bliss, Caleb Pond, Nathaniel Bunce, Joseph Morgan, Jeremiah Brown, James M. Goodwin, Theodore Pease, Elisha Dodd, Charles Babcock.

At a meeting of the directors the same day Thomas K. Brace was chosen president, and Isaac Perkins, secretary. They voted to make the office of Mr. Perkins the office of the company also, and to keep its account at the Phoenix Bank. By-laws were adopted June 25th. These provided that the directors should be divided into four classes, taken in the order of appointment, each to be on duty one month, following in rotation. No money could be drawn from bank except on checks signed by the president and countersigned by the secretary. Directors were made *ex officio* surveyors for the company.

September 27, 1819, Mr. Brace resigned the presidency in consequence of pecuniary embarrassments, when Henry Leavitt Ellsworth, who had already been elected a director in the place of Theodore Pease, deceased, was chosen to fill the vacancy.

How modest were the beginnings of this great institution, appears from the balance sheet presenting its operations up to May 31, 1820. On the debit side the principal item is the dividend of six per cent., declared December 15, 1819, on the actual cash investment, making \$900. From the organization till May 31, 1820, the total current expenses, including \$225 for the salary of Mr. Perkins and rent, reached the sum of \$451.82. During this period the receipts from all sources amounted to \$3,646.42, and as no losses had occurred, the fiscal year closed with a profit balance of \$2,294.60.

Mr. Ellsworth resigned the presidency March 6, 1821, when Thomas K. Brace, real father of the enterprise, whose embarrassments in the meantime had been removed, was re-elected.

Son of Chief Justice Oliver, and twin brother of Governor William W., Henry L. Ellsworth was born November 10, 1791; graduated at Yale in 1810; studied law, but subordinated professional practice to more active pursuits; erected several buildings in Hartford on Central Row; went to the frontier in 1832 as Indian Commissioner to the tribes in the southwest beyond Arkansas; was ten years at the head of the United States Patent Office in Washington, and then settled at Lafayette, Indiana, as United States Land Commissioner. He moved to Fair Haven, Connecticut, in 1856, and died there December 27, 1858. By will he left the bulk of a large estate to Yale College. A contest over the document ended in a compromise.

The first policy for \$6000 was issued August 17, 1819, and is treasured among the choice possessions of the office. About a month later the Ætna contracted to assume all outstanding risks of the Middletown Fire Insurance Company, amounting as it seems to nearly \$200,000. This is the first case of re-insurance of a company in the state, and is believed to be the first in the country.

In 1822 the board undertook to perform a similar act of grace for the New Haven Fire, then nearing the end, but Roger S. Skinner, its secretary, was also agent of the Hartford Fire, and diverted the contract to his principal.

Questions discussed and passed upon at early meetings of the directors often appear trivial, but none the less instructive because trivial, for they furnish data for measuring the length of the road from crude, tentative beginnings to the development of a highly educated profession. Matters of detail are now turned over to the experts, who fill the executive offices, and to their trained assistants. Then the vital parts of each policy, with the survey, were read to the board before delivery. Within eight months they wisely voted to take no new risk in excess of \$10,000 without a unanimous vote in its favor, and in such cases nine were required to constitute a quorum. The next year an agent was authorized to write, not exceeding \$17,000 on a single risk, and it is specially noted that nine directors were present and favored the excep-

tion. Evidently the original division into four classes had already fallen into disuse. To provide mental aliment for the wisdom that gathered around the table, the secretary was requested to procure for the use of the office, two newspapers, either semi- or tri-weekly, published one in New York and one in Boston, also a gazetteer and a big map. As a first essay to collect statistics the secretary was requested to register, in a suitable blank book, all losses by fire that might come to his knowledge, designating place, kind of property, etc., and for the service a reasonable compensation was promised in addition to salary. Thus the outlay for newspapers, aside from the gratification of *habitués*, was made to serve a permanent utility. Such incidents show the care bestowed upon minute details by the directors, and the vigilance with which they watched the expense account.

Until the formation of the *Ætna*, the few American companies in existence restricted their efforts almost entirely to the local business that could be conveniently secured by the executive officers. Very early the *Ætna* initiated a radical departure from the previous method, planting agencies cautiously at the more important centres of trade, and gradually extending the system till every desirable place in the country was occupied. April 2, 1822, the directors, by vote, requested the secretary "to journey on the seaboard of Massachusetts, New Hampshire and Maine, and from thence through the interior of the country home, and establish agencies at all places where he may think proper, and for his service he shall be allowed his expenses and two dollars per day." During the trip the *per diem* allowance took the place of salary. Again, in October, 1825, the president and secretary were authorized to employ a suitable person to travel through Pennsylvania, Ohio, Indiana, Illinois, Missouri and the states south for the purpose of establishing agencies.

A destructive fire, bringing heavy losses to the *Ætna*, occurred at Mobile, Ala., in the fall of 1827. Mr. Perkins was sent thither in November to settle claims and suspend the business of the agency. He was also empowered both to establish and suspend agencies at discretion on the journey. While at Mobile, although expected by the home office to pay by sight drafts, he invariably drew at thirty days. The process of adjustment proved somewhat tedious. Local business had been unsatisfactory. Mr. Perkins felt ill at ease, nursing exaggerated notions of southern carelessness in handling pistols and other implements suited to make life unpleasant for disagreeable strangers. He wished to avoid irritation and especially any outbreak of resentment. Hence, as he explained on reaching home, he intended to be well out of the way of harm in case losses elsewhere prevented the company from meeting the drafts and they went back protested.

The country was passing through a period of profound distress. One of the severest panics ever known struck England in 1825, suddenly ending an era of great apparent prosperity and riotous speculation.

From the intimacy of the business connections between the two countries our people, though in much sounder condition, were sucked into the whirlpool. Factories were idle, industries disorganized, trade sluggish, collections poor and bankruptcies frequent. Fires in 1827, as measured by the losses of insurance companies, were four-fold in excess of the normal ratio.

Perils so thickened around the *Ætna* that only the Roman courage of the directors saved it from destruction. A committee, appointed to devise ways and means to pay losses, made their report November 22, 1827, and recommended that the bank stocks, having a par value of \$21,750, be sold, except \$1,500 in the Eagle Bank of Providence; that all loans, amounting to \$6,780, be collected as soon as it could be done without inconvenience to borrowers, and that agents be pressed to remit bal-

ances on hand. From the three sources it was thought that \$30,000 could be raised in time to apply on outstanding losses. For the balance needed it was considered inexpedient to make an assessment on the stock notes. Accordingly they further recommended that loans be made at one or more of the city banks on paper endorsed by some of the directors, and that the board pledge themselves to save the endorsers harmless. By a unanimous vote the report was accepted and approved.

Thus the first dread crisis in the history of the *Ætna* was faced. From time to time other situations not less appalling have confronted the management. While the constituent members have changed, the spirit animating the body has never changed. Calamities sweeping away its assets and apparently leaving nothing but a shadow bereft of substance, have again and again been met with the same indomitable resolution and overcome.

Owing to the disorganized condition of business, the moral hazard was greatly increased. The *Ætna* appointed committees to confer with other offices which were undergoing like experiences, and, by mutual agreements, there followed before the end of the year a general raising of rates. Perhaps to-day this course would be stigmatized by a certain class of writers as a dangerous combination, but it saved the lives of such as survived.

After paying out the funds derived from the sale of stocks and the collection of loans, the company pledged to various banks stock-notes to the amount of \$50,000 as security for loans. Before these were fully paid its condition had so improved that in June, 1830, the directors voted a dividend of two dollars per share.

Isaac Perkins retired in June, 1828. He practiced law in Hartford from 1805 till 1840, serving for two years as prosecuting officer for the county. For a while he was in partnership with Thomas C. Perkins, who became one of the most eminent lawyers in the state. For the first nine years the business of the company was transacted in the office of Mr. Perkins. His salary fluctuated, rising in 1823 and 1824 to the rate of \$900 per annum, with an allowance of \$100 additional for rent and firewood, and afterwards receding to \$750. In lieu of salary he was voted four dollars per day while absent on the trip to Mobile, whence he reached home about the middle of March, 1828.

June 9, 1828, James M. Goodwin was appointed secretary, and served till May 1, 1837, when his resignation of April 24th took effect. June 8, 1837, Simeon L. Loomis, who for several years had been a faithful clerk in the office, was elected in place of Mr. Goodwin.

Dividends of \$1 per share were paid with fair regularity from June, 1831, till December, 1834, when the rate was increased to \$5. By May, 1836, the situation had so improved that the board voted a dividend of twenty-five per cent. to be applied on the stock-notes. Meanwhile the investment of funds was resumed, including a subscription for three hundred shares in the Hartford and New Haven Railroad in the year 1835.

Fire losses serve as quite an accurate gauge of general business conditions, rising with adversity and falling with prosperity. The panic of 1837 brought trouble to insurance offices, causing a large excess of outgo over income. With none of them was there a surplus seeking securities. To meet deficiencies most were compelled to sell or borrow. The year 1839 opened favorably, but the panic of '37 had not yet spent its force. During the summer and fall heavy losses, occurring for the most part over a wide area, exhaustive more from frequency than magnitude, compelled the company to resort again to sales and loans.

At the request of the directors, and with full power to remove and appoint

agents, settle accounts, collect dues, give discharges, and act otherwise for the benefit of the company, President Brace, in the summer of 1838, made a trip through New York, New Hampshire and the British dominions. His letters, by the way, addressed to Simeon L. Loomis, secretary, are still preserved in the archives of the company. The journey, which would now require a week, was then leisurely performed between the middle of June and the 1st of September.

The *Ætna* was the first company to issue a fire policy in Chicago, having, in 1834, appointed Gurdon S. Hubbard to represent it. The document was on exhibition in the historical library of that city till destroyed in the fire of 1871. Mr. Hubbard remained a trusted agent of the company till his retirement, after more than thirty years of faithful service.

No small part of the pioneer work was performed by the early director, who traveled west and south by stage and boat, long in advance of railways, establishing outposts at frontier towns which have since developed into populous cities. In this way, to a large extent, Cincinnati, Detroit, Chicago, Louisville, St. Louis, Memphis, Natchez, New Orleans, Mobile, and other places were reached, and the territory partially pre-empted. He went armed with ample powers, his instructions following in its essential features the commission given to Mr. Brace in 1838. In case of large fires the work now performed by the professional adjuster then fell to the director. As emergencies arose different members of the board were selected for special services at points near and far. Some became very expert in discriminating just from unjust claims, and in effecting settlements with all sorts and conditions of men.

During the period of infancy, while the company was fighting for existence, the economical scale of expenditures arranged for Secretary Perkins on his initiatory trip through New England was rigorously adhered to. Just twenty years later, in 1842, Joseph Morgan, one of the original directors, made an extensive circuit, taking in New Orleans and Chicago, and all the important intermediate towns. The journey, estimated at six thousand one hundred and four miles, occupied ten weeks, at an average expense, including fares and hotel bills, of \$3.29 per day. During most of his long life Mr. Morgan kept a diary. The record, filling many volumes, is now in possession of his grandson, James J. Goodwin. Chicago then had four or five thousand inhabitants. St. Louis was six times as large. A notable incident of the trip was a detour to Ashland to visit Henry Clay. Mr. Morgan was called on oftener than either of his associates to do this kind of work. He was the father of Junius S. Morgan, the eminent London banker, and grandfather of J. Pierpont Morgan, whose more than royal power in financial circles has been used effectively to purify American railway management, and to rehabilitate great properties wrecked by incompetence and fraud. Three generations have been successively represented in the directory by Joseph, Junius S. and J. Pierpont Morgan. Mrs. James Goodwin, of Hartford, was a daughter. His descendants, both those who have remained at home and those who have found elsewhere broader fields, have bestowed upon the city munificent gifts, including nearly \$300,000 for a free library and art gallery.

By an amendment to the charter secured in 1839, the company was empowered to issue policies against the hazards of inland navigation. The privilege was not exercised till the autumn of 1843, when the directors authorized agents at Apalachicola, Savannah, Macon, Columbus, Mobile, New Orleans, Natchez and Louisville, to take risks on cargoes on board of steamers and pole boats, but not on the boats themselves, nor on the cargoes loaded on "that species of craft called boxes, arks or broad-horns." A policy issued October 4, 1859, at the rate of one-half per cent., on fifteen negroes, valued at \$16,000, bound from Glasgow, Mo., to Carrollton, Miss., is still preserved at the home office as a curiosity of inland insurance.

Affairs had so improved that in November, 1843, the board declared a dividend of 18 per cent.—eight in cash, and ten to be indorsed on the stock-notes.

The Ætna escaped the fire of December 16, 1835, in New York city—the first in the series of great American conflagrations—which destroyed property to the value of \$15,000,000, and bankrupted twenty-three out of twenty-six local insurance companies. It entered the city the following year, having for agent Augustus G. Hazard, afterwards the organizer and president of the Hazard Powder Company, of Enfield. It was not so fortunate in the fire of 1845, which swept \$6,000,000 of property from the business centre of the metropolis, and cost the Ætna \$115,000. When the news reached Hartford, Mr. Brace called together the directors and told them that the calamity would probably exhaust the entire resources of the company. Going to the fire-proof, he took out and laid on the table the stocks and bonds representing its investments. Little was said, each member waiting for some one else to take the initiative. At length the silence was broken by the question: "Mr. Brace, what will you do?"

"Do?" replied he. "Go to New York and pay the losses if it takes every dollar there," pointing to the packages, "and my own fortune besides."

"Good, good," responded the others. "We will stand by you with our fortunes also."

Such an increase of premium-receipts followed, that in twelve months the Ætna was as strong in cash as before. In March, 1848, a dividend of twenty dollars a share, amounting to \$50,000, was indorsed on the stock-notes, and the money invested in solid securities, some of which the company still holds. Hitherto, it had been forced again and again to part with favorite investments to pay losses, but here when about to enter upon the last half of the century, the somewhat periodical distresses due to smallness of resources passed away for good. In February, 1849, the board declared a dividend of twenty per cent., applicable only to the payment of the third and last installment upon the stock notes. By this operation these were finally extinguished.

Fifty thousand dollars were added to the original capital in December, 1822. The secretary was authorized to offer the new stock at an advance of \$5.00 on a share, not *pro rata* to holders of record, but "in such number of shares and to such persons as in his opinion may be most for the interest of the company."

In 1846, in conformity with a vote passed the 30th of the previous December, \$50,000 were added, one-half payable in cash or its equivalent, and one-half in the customary installment notes. In July, 1849, a third increase of \$50,000 was voted, to be paid in cash or indorsed notes, running not more than eighteen months. Thus the company turned the middle of the century with a fully paid capital of \$300,000.

January 1, 1849, the Ætna owned bonds and stocks valued at \$269,550. Thirteen months later, with \$50,000 of fresh capital in the treasury, its assets amounted to \$456,327.46, and its liability for losses to \$141,344. In the interim it disbursed \$125,000 for a single fire in St. Louis.

But the season of storms which culminated at St. Louis, and sent many competitors to the bottom, convinced the public of the inherent staunchness of the Ætna, and by the prudent enterprise of its managers, even cruel reverses to the general interests of fire insurance, were made to bring to it large accessions of business and revenue.

The Protection, the third fire insurance company organized at Hartford, failed in 1854 through the continuous unprofitableness of its marine department, aggravated by the incurable injuries received at St. Louis in 1849. It had been the pioneer in

occupying the small as well as the large towns of the West, but the gains from these sources were insufficient to offset the losses incurred at sea and on our inland waters. Here was a broad gap to be filled, and the *Ætna* lost no time in meeting the emergency, for it opened a branch office at Cincinnati in 1853 with the firm purpose of keeping step with civilization in progressive occupancy of the West. When a few months later the Protection yielded up the ghost a material share of the business dropped as ripened fruit into the lap of its rival. Soon a thousand agents were at work west of the Alleghenies, and in the ensuing period of exemption from large fires the company rolled up wealth with a rapidity never equalled before either in the United States or elsewhere. In 1854 the capital was increased from \$300,000 to \$500,000, one-half contributed by shareholders and the other half by a dividend from profits. The figures remained at this point but a short time, for in 1857 they were changed to an even million. In 1859, from the profits of two years, the owners were gladdened by a second stock dividend of half a million, which was followed in 1864 by another for \$750,000. Evidently the figures, \$2,250,000, offended the eyes of the directors, and accordingly after enduring the sight for two short years they raised the capitalization in 1866 by a stock dividend to the rounded, symmetrical and artistic sum of \$3,000,000. Ambition to make the *Ætna* the largest fire insurance company in the country led the stockholders in 1881 by an issue of ten thousand new shares at par for cash to enlarge the capital to four millions, where it now stands.

In 1851 the company appointed its first traveling or special agent, A. F. Willmarth, who a few months later was made assistant secretary, but soon left. The position of assistant secretary, evidently created for Mr. Willmarth, remained vacant except during the brief incumbency of Jonathan Goodwin, Jr., appointed in 1863, till 1867, when it was permanently revived on the accession of William B. Clark to the official corps.

Thomas Kimberly Brace, through whose influence and exertions mainly the *Ætna* was brought into existence, warned by the infirmities of age, resigned the presidency in 1857, and died June 14, 1860, in his eighty-first year. Stephen Brace (Bracey), the emigrant ancestor, came from London and settled in Hartford. His grandson, Lieutenant Jonathan, moved to Harwinton in 1733; Jonathan, Jr., born in Harwinton, November 12, 1754, graduated at Yale College in 1779, studied law, acquired a large practice in Central Vermont, but returned to Connecticut, and after residing a while in Glastonbury took up his permanent abode in Hartford in 1794. He was in public life forty-two years, less from choice than from solicitation of his fellow-citizens.

Thomas K. Brace was born October 16, 1779, graduated at Yale College in 1801, and settling in Hartford built up the wholesale grocery house of T. K. Brace & Co. He was mayor of the city, 1840-43, and in the latter year consented to run for Congress on the Whig ticket, but was beaten by Col. Thomas H. Seymour. He was nominated for a subsequent term, but declined in favor of James Dixon, who was elected. Mr. Brace belonged to the safe and trusty order of men to whom others instinctively turn for guidance.

Edwin G. Ripley succeeded Mr. Brace August 4, 1857. A New Hampshire boy, Mr. Ripley emigrated to Hartford, where he learned the details of business in the establishment of T. K. Brace & Co. Later he became partner of his uncle, Philip Ripley, in the iron trade. He was elected secretary of the *Ætna* in June, 1853, and vice-president a year later. He died August 26, 1862. Quiet but forceful, his words were few, direct and convincing. He was one of the first to see the need of storing up reserves wherewith to meet the heavy drains of hard times, and to open book

accounts with different classes of risks with a view to learn the average cost of carrying each.

On the 10th of September following Thomas A. Alexander was elected president and held the position till his death, March 29, 1866, although, broken in health by continuous labor, he had resigned the previous October. Mr. Alexander entered the service of the *Ætna* as a clerk in its New York agency in March, 1843. Upon the resignation of A. G. Hazard in July, 1845, he was promoted to fill the vacancy. He moved to Hartford in November, 1853, to take the secretaryship of the company. Having nearly reached the term of three-score years and ten he died at Bergen, N. J., greatly respected and lamented.

In April, 1852, Chillicothe, O., called for \$115,000, and three months later Montreal took \$105,000. For the next ten years the company enjoyed remarkable immunity from large losses, considering the extent and magnitude of its business. With the turn of the tide even the \$163,000 required to settle the Portland claims in July, 1866, and the \$120,000 sent to Vicksburg in January, 1867, did not perceptibly interrupt the upward flow of assets.

Strangely enough the phenomenal prosperity of the company provoked internal dissensions in regard to the disposition of profits. A party among the stockholders, strong in number and influence, strenuously resisted the policy of accumulating a re-insurance fund. Any deviation from the early practice of treating a premium as fully earned the instant it reached the treasury, was denounced as a "new-fangled" notion without justification in theory or fact. They demanded a distribution of all earnings either in cash or in new shares which the recipient could convert into cash. Reserves for reinsurance were not then required by law. Warned by the practices and consequent failure of the *Protection*, the managers of the *Ætna*, long in advance of legislative action, saw the fallacy of the reasoning and the danger of the method. They urged that over and above the capital an insurance company should have a fund large enough to reinsure outstanding risks. This view is now universally enforced by law and has become a truism of the trade, but early advocacy of the doctrine raised a tempest around the officers of the *Ætna*. Fortunately they were supported by the dominant directors and won the fight. The decision of that controversy played a large part in giving to Hartford its pre-eminence in underwriting.

A dealer, struck by the frequency of fires among his customers, asked Mr. Ripley if the company made money on paper-mills. He could not answer the question, but like Paul on the road to Damascus, saw a bright light. Several years in advance of competitors he began to arrange statistics in regard to relative hazards, and the task has been extended to cover every kind of risk. Upon the fulness and accuracy of the record must rest the claims of underwriting to a scientific basis, including the fairness with which the burden of losses is distributed by means of a justly graduated scale of premiums.

In 1853 the general agent of the *Ætna* at Cincinnati prepared the first blank proof of loss. In substantially the original form it has since come into universal use.

Not content with furnishing indemnity to an ever-widening circle of patrons, the *Ætna* initiated the work of educating the public in art by publishing the first chromo poster in 1855. The picture represented a steamer throwing a stream of water upon a burning block. How deep in human nature lay the hitherto dormant and unconscious appetite destined to be roused by the venture into omnivorous voracity, was quickly disclosed through the abundance of aliment supplied for its gratification.

The company was the first to introduce the use of outline charts in 1857. Out

of this germ grew the Sanborn maps, now an essential part of the equipment of all large offices.

As far back as September, 1819, the *Ætna* issued a book of instructions for the use of its agents. It classifies risks, fixing the rate for each and excluding some as non-insurable. It insists upon correct surveys as serving to expose frauds, prevent law-suits, and secure truthfulness. Buildings and fixtures must not be estimated above their worth in cash, and any proposal for more is of itself a cause of suspicion. The rule is not to be enforced against personal property, merchandise, etc., which is liable to vary in kind and quantity. The insured is entitled to no more than the value of the property proved to have been destroyed. The correctness of the rules laid down in this little book—believed to be the oldest of the kind in the country—has never been successfully assailed, though attempts have been made through valued policy laws and other schemes for the encouragement of robbery.

In April, 1866, Lucius J. Hendee was elected president and Jotham Goodnow, secretary. November 20, 1867, William B. Clark was appointed assistant secretary.

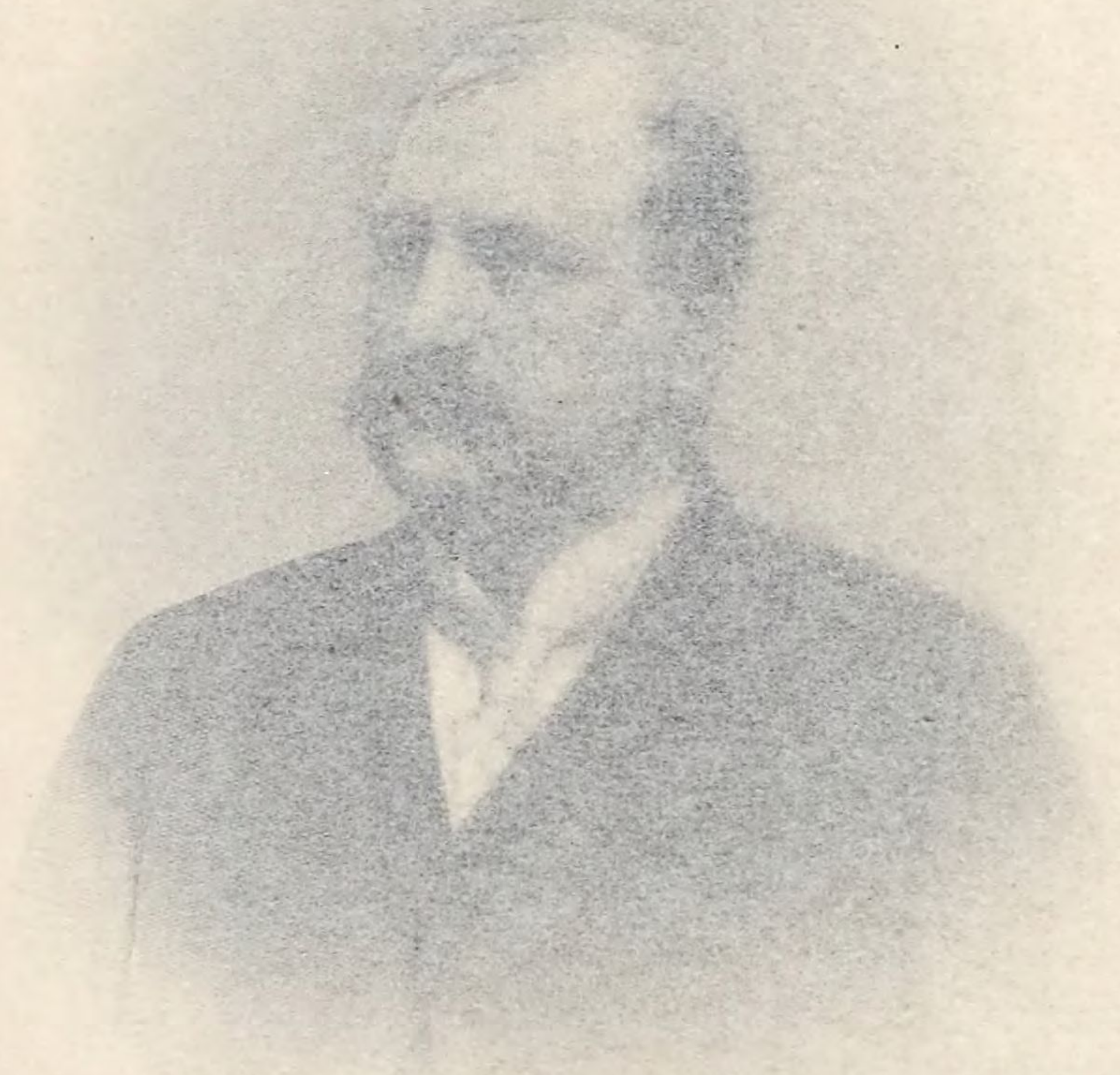
In 1835 the company bought of William H. Imlay, for \$9,570, a lot on the north side of State street, and proceeded to erect the block now containing three stores, numbered 134-42. For its office it occupied No. 134 till the completion, in 1867, of its present home in the brown-stone building on Main street.

By the Chicago fire of 1871 the *Ætna* lost \$3,782,000. To meet the impairment the capital was reduced one-half, and immediately refilled by cash payments of \$1,500,000. Thirteen months afterward the Boston fire absorbed \$1,635,067 more, and the inroad was made good by a further contribution of \$1,000,000 from the shareholders, making \$2,500,000 furnished by them in a year to maintain the technical solvency of the company. After deducting the losses at Chicago, over \$2,600,000 of assets were left in the treasury exclusive of fresh contributions.

Mr. Hendee passed away September 4, 1888, aged seventy. He was born in Andover, Conn., July 13, 1818. He assisted his uncle, Abner Hendee, in his store in Hebron, from 1836 till 1852, when he succeeded to the business. Both uncle and nephew were faithful and trusted agents of the *Ætna*. While living in Hebron Lucius J. took deep interest in the political controversies that led up to the war, serving as State Senator in 1856, and as State Treasurer three terms, 1858-61. July 3, 1861, he was elected secretary of the *Ætna*, and in April, 1866, president, in both cases succeeding Mr. Alexander. Under his administration the great reverses at Chicago and Boston were met. After paying nearly \$5,500,000 to the sufferers from those two fires alone, the company came out of the ordeal stauncher and with higher credit than ever before. Sincere and upright, genial and gentle, Mr. Hendee was beloved by his associates both in office and out.

September 26, 1888, Jotham Goodnow was elected president; William B. Clark, vice-president; Captain Andrew C. Bayne, secretary; and James F. Dudley and William H. King, assistant-secretaries.

Mr. Goodnow died suddenly, November 19, 1892, at the age of seventy-one. He came from Fall River to Hartford in 1856, was bookkeeper in the Hartford Bank till 1864, when he went to Rockville as cashier of the First National Bank. Soon after he accepted the cashiership of the City Bank of New Haven, and in 1866 the secretaryship of the *Ætna*. His most impressive characteristic was unswerving devotion to what he believed to be right. He detested evil-doing and fraud under all forms and guises. Love of right sometimes made him appear unduly intolerant of wrong. He served in the common council, not because the position was agreeable, but from a desire to promote the public welfare. The positions he held best indicate the estimate placed by others upon his capacity.



Thos. Clark

of all kinds, from the Sanborn maps, now an essential part of the equipment of every fire insurance company.

On September 18, 1859, the Aetna issued a book of instructions to its agents, fixing the rate for each and excluding certain risks. It made good correct ways as serving to expose frauds and to protect the honest. Buildings and fixtures must not be over-insured, and any proposal for more is of itself a cause of rejection. The insured is entitled to no more than the actual loss, and is entitled against personal property, merchandise, etc., only for the actual loss. The insured is entitled to no more than the actual loss, and is entitled against personal property, merchandise, etc., only for the actual loss. The insured is entitled to no more than the actual loss, and is entitled against personal property, merchandise, etc., only for the actual loss. The insured is entitled to no more than the actual loss, and is entitled against personal property, merchandise, etc., only for the actual loss.

In April, 1864, Lucius J. Hender was elected president and John H. Helmer, secretary. November 27, 1867, William B. Clark was appointed assistant secretary.

In 1867 the company bought of William H. Inlay, for \$9,570, a lot of land on the west side of Main street, and proceeded to erect the block now containing the company's offices. The office occupied No. 134 till the completion of the present building in the new stone building on Main street.

By the Chicago fire of 1857 the Aetna lost \$3,782,000. To meet the loss the capital was reduced one-half and immediately refilled by cash contributions. Thirteen months afterward the Boston fire absorbed \$1,000,000, and the insured were made good by a further contribution of \$1,000,000. The shareholders, making \$2,000,000 furnished by them in a year to maintain the solvency of the company. After deducting the losses at Chicago, \$3,782,000, and at Boston, \$1,000,000, the treasury exclusive of fresh contributions.

Mr. Hender passed away September 4, 1888, aged seventy. He was born in Andover, Conn., July 12, 1818. He assisted his uncle, Abner Hender, in the business of the Aetna, from 1846 to 1861, when he succeeded to the business. His nephew was Lucius J. Hender, and Lucius J. Hender was an agent of the Aetna. While living Lucius J. Hender was active in the political controversies that led to his serving as State Senator in 1850, and as State Treasurer three terms, 1851, 1852, 1853, 1854. He was elected secretary of the Aetna, and in April, 1866, presided over the meeting of the shareholders. Under his administration the great losses at Chicago and Boston were met. After paying nearly \$5,500,000 to the insured in those two fires alone, the company came out of the ordeal stauncher and with more credit than ever before. Simple and upright, genial and gentle, Mr. Hender was beloved by his associates both in office and out.

September 22, 1880, John H. Helmer was elected president; William B. Clark, vice-president; Captain Arthur C. Bayne, secretary; and James F. Deane, assistant-secretary.

Mr. Helmer died suddenly, November 19, 1892, at the age of seventy-four. He came from Fall River to Hartford in 1856, was bookkeeper in the Hartford Bank in 1864, when he went to Rockville as cashier of the First National Bank. He accepted the cashiership of the City Bank of New Haven, and in 1867 became secretary of the Aetna. His most impressive characteristic was unswerving loyalty to what he believed to be right. He detested evil-doing and fraud, and was a lover of right sometimes made him appear unduly intolerant. He served in the common council, not because the position was agreeable, but a desire to promote the public welfare. The positions he held best indicated his capacity.



Amos J. Clark

D. H. HURD & CO., PUBLISHERS

Erastus J. Bassett, adjuster for the *Ætna* since 1862, and widely known for his skill in the profession, died July 27, 1891, at the age of seventy-one. Andrew C. Bayne followed, October 12, 1893. Although born in Scotland, he entered the military service of the United States at the outbreak of the Civil War, and was wounded five times, thrice seriously. He entered the regular army in 1866, and was retired in '71. Before his call to the home office, he had served the company as special agent, with headquarters at Albany.

November 30, 1892, William B. Clark was elected president; and, December 7th, A. C. Bayne, vice-president; James F. Dudley, secretary; and William H. King and E. O. Weeks, assistant-secretaries.

The death of Captain Bayne brought further changes in the official corps. James F. Dudley became vice-president; William H. King, secretary; and E. O. Weeks and F. W. Jenness, assistant-secretaries. All these gentlemen are veterans in the service of the company. Seth King, father of William H., was enrolled in 1838, and for ten years did all the clerical work in the office. His son followed in 1862, and his grandson, F. E. King, in 1893.

President Clark was born in Hartford, June 29, 1841. His father, A. N. Clark, was manager and part-owner of the *Courant* during and after the war. The son, after serving a short time on the newspaper, in 1857 entered the office of the *Phoenix Fire*, of which he became secretary in 1863. In 1867 he resigned to take the assistant-secretaryship of the *Ætna*. On the death of Mr. Goodnow, the office of vice-president, created in 1853 for Edwin G. Ripley, and after his promotion allowed to remain vacant, except when filled for a brief interval in 1862-3 by Henry Z. Pratt, was revived for Mr. Clark. Although still in the prime of life, in term of service he is the oldest insurance official in the city, and even from early manhood has been through the country recognized as one of the most competent men in the profession. He has served as an alderman, and on the board of water commissioners, and as a director is connected with several financial and benevolent institutions of the city.

James F. Dudley, vice-president, was born in Hampden, Me., February 1, 1841, graduated at Bowdoin College, taught awhile, for several years conducted a local insurance office at Bangor, Me.; in 1874 became special agent for Pennsylvania for the North British and Mercantile Insurance Company; in 1876 took the special agency for the *Ætna* for the same territory, and later for New York; in 1885 returned to the North British, acting as assistant manager in New York city when recalled to the *Ætna* in 1888.

William H. King, secretary, both by inheritance and association, seems to be almost an integral part of the *Ætna*. His father was connected with the company over forty-four years. William H., born July 4, 1840, after a short term of service during the war, entered the office of the *Ætna* in 1862, becoming second assistant secretary in 1888, first assistant secretary in 1892, and secretary in 1893. Declining attractive offers to go elsewhere, he has remained steadfast in attachment to the institution to which his life-work has been devoted.

Egbert O. Weeks, assistant secretary, was born of New England parentage in Pennsylvania, October 28, 1847. Beginning his work in insurance with the Wyoming Company of Wilkes-Barre, Pa., he later became special agent of the Lancashire, and of the Liverpool and London and Globe. In May, 1883, he entered the service of the *Ætna* with office at Wilkes-Barre. In 1889 he moved to Philadelphia, taking supervision of Pennsylvania, Delaware, Maryland, West Virginia and the District of Columbia. He was one of the founders of the Underwriters' Association of the middle department, serving almost continuously upon its Executive Committee, and as president one term. He was called to the home office in December, 1892.

F. C. Bennett, of Cincinnati, is general agent of the western branch ; William H. Wyman, of Omaha, of the northwestern ; Boardman & Spencer, of San Francisco, of the Pacific.

January 1, 1897, the *Ætna* had gross assets of \$11,431,184.21. After providing for all liabilities, actual and contingent, its capital of \$4,000,000 is reinforced by a net surplus of \$3,849,988.05.

THE PROTECTION INSURANCE COMPANY.

Of all the early insurance companies of Connecticut, none began under such favorable conditions as the Protection, of Hartford. It was incorporated in 1825. The capital was to be not less than \$150,000, with the privilege of increase at pleasure to any further sum not exceeding \$500,000. Ten per cent. was required at the time of subscription, and the remaining ninety per cent. within thirty days was to be paid in notes secured by mortgage on real estate, or by approved indorsements and payable thirty days after demand. Each stockholder was entitled to one vote for every share up to one hundred, and at that limit his voting power ceased. The corporation was authorized to make both marine and fire insurance. By an amendment passed the next year the clause authorizing marine insurance was extended to the hazards of inland navigation. All stockholders in the Hartford Insurance Company had the special privilege of taking as many shares in the Protection as they held in the Hartford, provided the privilege was exercised at the opening of the books in June, 1825. The old company was forbidden to make any further insurance from the time when its successor went into operation.

It will be seen that in direct line of descent the Protection inherited the traditions and good will of the first generation of underwriters in Hartford. Back in 1795, Jeremiah Wadsworth, John Caldwell, Sanford and Wadsworth, Elias Shipman and John Morgan formed a copartnership "for the purpose of underwriting on vessels, stock, merchandise, etc., by the firm of the Hartford and New Haven Insurance Company." The year before some of the same parties, and probably all of them except Shipman, issued policies as the Hartford Fire Insurance Company. The combination did not last long. Having acquired an appetite for the business, Shipman organized a corporation under his own management at New Haven in 1797. The partnership of Sanford and Wadsworth was dissolved in January, 1798, and soon afterwards Sanford moved from the city. Beginning in 1799 with Ezekiel Williams as manager, John Caldwell and John Morgan, in association with others issued hundreds of marine policies, till, in 1803-4, the business was taken up by the Hartford Insurance Company, which, in turn, was merged in the Protection in 1825, the last secretary of the Hartford becoming its first president.

Books for subscription were opened June 13, 1825, at the office of the Hartford Insurance Company. The shares were quickly taken, and on the 22d of the same month the stockholders elected the following board of directors: Solomon Porter, Jeremiah Brown, William W. Ellsworth, Merick W. Chapin, James B. Hosmer, Nathan Morgan, Henry Hudson, Roderick Terry, Edward Watkinson, James H. Wells and Charles S. Phelps. On the same day the board elected William Wolcott Ellsworth president, and Thomas Clap Perkins, secretary.

William W., son of Chief Justice Oliver Ellsworth, was born November 10, 1791 ; graduated at Yale College in 1810 ; studied law ; was elected three times to Congress, but resigned before the close of his third term ; beginning in 1838, was four times elected governor of Connecticut, and later judge of the Supreme Court and of the Supreme Court of Errors, where he served till retired by law, at the age of seventy. He died January 15, 1868.

Thomas Clap Perkins, secretary till 1837, was born at Hartford, July 30, 1798; graduated at Yale College in 1818, standing second in his class, and practiced law in Hartford, where he rose to such eminence that he was employed on one side or the other of nearly every important case that came before the courts. He declined an appointment to the bench of the Supreme Court of the state, preferring private practice to judicial honors. He died October 11, 1870.

Fortunate in lineage and its first executive officers, the company was equally fortunate in meeting the man who built up its agency system at the West. Ephraim Robins, a merchant, well educated, tall and attractive in person, elegant in manners, systematic, conscientious, powerful with the pen and generally versatile in accomplishments, at the age of forty-one saw his property vanish in the cyclone of 1825. Amid widespread ruin his eye fell upon a notice in a Hartford newspaper of the formation of the Protection Insurance Company. Having lost by the perils of inland navigation, his vision, further sharpened by mental pain, saw at once the utility and beneficence of the scheme. With his own experience as a text to preach from he felt that he had a call to go forth into the world to save others from the ruin that had overtaken himself.

Son of Ephraim Robins, Sr., of Hartford, Conn., in 1797, at the age of thirteen, he entered the employ of Harrison, Wilby & Co., of Boston, importers of English queensware. Later he established a business in New York city, which he transferred to Cincinnati in 1820.

When the possibilities of the West as a field for insurance flashed upon him he hurried to Hartford, on the way working out the details of his scheme. Seeking Mr. Perkins he presented the advantages certain, as he argued, to accrue to the company from the establishment of a branch agency at Cincinnati, in the heart of a new and growing region, with the power of appointment, removal and supervision in the hands of a competent general manager.

Both the secretary and the directors were convinced. Mr. Robins was accordingly made general agent and put in charge of the western department. Returning to Cincinnati September 1, 1825, he rented for an office the vacant banking house of the Miami Exporting Company. Selecting John P. Foote, a well and widely known resident, he sent him out through Ohio and other states to select in important towns the best available men for agents. These carefully instructed and trained, within a few years, numbered two hundred and fifty, and from their general character gave a high standing to the company.

The office in Cincinnati, furnished with the leading newspapers of the day and warmed in winter by hickory logs burning in a broad open fire-place, was also a sort of club room for the local chiefs of the Whig Party. It was frequented by General William H. Harrison, Bellamy Storer, Judge Burnet, Isaac G. Burnet, Daniel Drake, Alphonso Taft, Nicholas Longworth and many others who met to talk over public affairs.

In a business way the office became a normal school in which fire insurance in progressive and systematized form was taught to employees and agents.

Mr. Robins died in 1846, having in the twenty years taken three millions in premiums, of which ten per cent. on an average went to the company in profits.

Meanwhile changes occurred in the management. Mr. Ellsworth retired in 1836. Subsequent presidents were David F. Robinson, 1836-9; Hezekiah King, 1839-40; Eliphalet Averill, 1840-1; Daniel W. Clark, 1841-54. Secretaries were Thomas C. Perkins, 1826-37; James L. Goodwin, 1837-40; William Conner, 1840-54.

As the Protection was the pioneer in organizing the agency system on a com-

prehensive scale, so it was the first to employ a special agent for the exclusive work of travel, supervision and adjustment. In this capacity Mark Howard entered the service of the company in 1846. Railways were then few. Mr. Howard traveled east and west, north and south, from Maine to Louisiana, mostly by canal, stage and steamboat.

The three Hartford companies then in existence suffered bitterly by the St. Louis fire of 1849. The losses of the Protection exceeded \$130,000, and coming as a climax in a season of woeful disasters led the management to debate the question of giving up the fight for life without further struggle. Mr. Howard denounced the proposal and volunteered to go in person to settle the claims, although cholera was raging in the city. He found the streets deserted. Thousands had fled and scores were dying daily. Undaunted he walked into the pestilence. Adjusting and paying in full all claims against his own company and the *Ætna*, he added much to the general confidence already felt in Hartford underwriters.

Correct theories of fire insurance, so far as a line of effort so uncertain and variable can claim a scientific basis, have been developed slowly and enforced by countless failures. During the first half of the century companies lived from hand to mouth. When affairs ran cheerfully, current profits were scattered in dividends. Premiums at the instant of receipt were assumed to be fully earned. A few years of continuous prosperity always saw the birth of a lot of weaklings that lived just long enough to give a bad name to the business. To meet competition rates dropped to levels that barely yielded living returns under the most favorable conditions. No preparations were made for impending evils. Yet panics, followed by stagnation and an enormous increase of the "moral hazard," succeed periods of hope and boom as wave chases wave. Institutions had not then learned the imperative need of piling up reserves in good times to meet the drains that bad times will surely bring. Consequently the history of fire insurance during the first six decades of the century is mostly a history of wreck and ruin. Those that survived the stage of ignorance pulled through by virtue of the personal faith and courage of managers.

W. B. Robins succeeded his father in 1846, continuing in charge of the department till the company suspended. Before the close four hundred agents reported to him. During the eight years he took two millions in premiums, with a fair average of profit. As St. Louis reported directly to the home office the adverse balance arising from the fire of 1849 was not charged against him.

Measured by the standard of local contemporaries the Protection exceeded the average in mistakes. Exhaustive dividends were declared as a matter of course whenever there was an apparent surplus. The management clung to losing lines. They insured whaling ships after the industry was clearly doomed. They sought the coasting trade despite continuous disaster.

A reported interview between President Clark and Mark Howard exposes the distress of the treasury.

"Have you made money on distilleries?" asked Mr. Howard. "No," replied Mr. Clark, "we are far behind on them."

"Have you made money on paper-mills?" "No. On paper-mills the balance is heavily against us."

"How is it with wholesale drug stores?" "Oh, on them we have lost right along."

"Well, Mr. President, are you still insuring distilleries, paper-mills and wholesale drug stores?" "Yes, we are. *We must have the premiums.*"

Mr. Howard saw the drift of affairs too clearly not to forecast the inevitable.

Loyal to the company, he at first remonstrated against the continuance of ruinous methods, and when his warnings passed unheeded quietly withdrew.

In 1845 the capital was increased to \$200,000, and in 1849 to the nominal sum of \$300,000, but grounded on the figures \$291,800, and there held fast. During the last years one-half was represented by stock-notes and one-half by cash. Final statements to state authorities were strained to make as fair a showing as a certain vague traditional regard for truth would permit. At last, on the 7th of September, 1854, amid heart-burnings and reproaches, aggravated by calls to pay the stock-notes lodged in banks as security for loans, the suspension of the company was formally announced.

The collapse of the Protection, by directing attention to both the strong and the weak features of its policy, taught lessons that were not lost. Other Hartford companies profited, not only by taking on a large share of its business, but by accessions from its disbanding ranks of bright, energetic, well-trained agents. In the fall of 1853, J. B. Bennett abandoned the sinking ship, and under contract with the *Ætna* took full charge of its western business, with headquarters in Cincinnati. Young, magnetic, and overflowing with mental resources, he pushed the work with unprecedented vigor. In the next seventeen years the branch, through a thousand subordinate agents, handled seventeen millions of premiums, of which over three and one-half millions accrued to the home office in profits. F. C. Bennett, brother of J. B., and also a graduate of the Protection, has, since 1871, had charge of the business of the *Ætna* in the Central West. Another graduate, H. M. Magill, a versatile and accomplished underwriter, has long been general agent of the Phoenix, of Hartford, managing from Cincinnati, its department made up of southern and western states. Mark Howard organized the Merchants', and after the Chicago fire, the National. The list might be extended to include notices of W. H. Wyman, J. W. G. Simrall, Samuel E. Mack, J. C. Mitchell, J. C. Davies, and others of high repute in the upbuilding of insurance interests in America.

CHAPTER XLV.

INSURANCE IN CONNECTICUT—Continued.

SECURITY INSURANCE COMPANY (NEW HAVEN).

THIS company was chartered in 1841 as the Mutual Security, with the view of doing business on both the stock and mutual plans. The latter feature was abandoned in 1843. For a long time the paid capital remained \$50,000. In 1872 it was increased to \$100,000, and in '75 to \$200,000. It fortunately escaped the great fires of Chicago and Boston. From 1841 till 1872 the Security did mainly an ocean marine business, confining its fire risks to New Haven and vicinity. It then made a radical change of policy, reducing its marine risks to a small volume, and extending the fire business till it now has about one thousand agencies, covering nearly all of the Eastern and Western states. Having paid in losses \$6,425,107, and dividends averaging over 8 per cent. annually for fifty-six years, it had, January 1, 1897, capital, \$200,000; assets, \$755,666; and net surplus, \$123,257.

Presidents in succession have been Joseph N. Clark, Theron Towner, Justus Harrison, William Lewis, Willis Bristol, John S. Griffing, Charles Peterson and Charles S. Leete.

H. Mason succeeded Philip S. Galpin as secretary and manager in 1871, and has held the position since.

The company has been a favorite in New Haven, having from time to time in its directorate many of her most prominent business men.

THE CITY FIRE (HARTFORD).

The company that came at last to be known as the "City Fire," of Hartford, was long in getting a start and a name. Chartered in 1847 as the Connecticut Mutual Fire, with the view of applying the mutual principle to the insurance of property in cities, it soon learned that this was not the kind of protection which merchants and town residents desired. By an amendment secured in 1851, the corporation was authorized to raise a guaranty capital of not less than \$50,000, nor over \$100,000. It began at the full limit. Ten per cent. was paid in cash, and 90 per cent. secured by stock-notes. In 1853 the name was changed to the Hartford City Fire Insurance Company, but as the "Old Hartford" protested vigorously against such encroachment upon its vested rights, the word Hartford was dropped the following year.

The company did not organize for work prior to 1853. Leverett Brainard, who has since in many ways been actively identified with the industries and institutions of Hartford, moved thither to take the secretaryship, Ralph Gillett becoming president. A careful policy was followed by uniform prosperity till, with few mistakes to regret, it was suddenly destroyed by the Chicago fire of 1871. The capital was increased to \$150,000 in 1856, and two years later to \$250,000, where it afterwards remained. For 1870 its premiums reached \$346,560. On the 1st of January, 1871, it had gross assets of \$554,287, and a net surplus of \$69,163.

Mr. Brainard resigned January 1, 1858, to enter the partnership of Case, Lockwood & Co., which has long been one of the leading printing and book-binding houses in New England. He was succeeded by C. C. Waite, who left in 1862, and is better known in hotel than in insurance circles. William E. Baker was secretary 1862-4, and George W. Lester, 1864-71.

Presidents were Ralph Gillett, H. D. Condict, C. B. Bowers, W. E. Baker and C. T. Webster.

THE BRIDGEPORT FIRE AND MARINE INSURANCE COMPANY.

This company was incorporated in 1850, but did not organize until 1854. It began with a capital of \$100,000, ten per cent. paid in cash and ninety per cent. in the customary stock-notes. No shareholder was permitted to vote on over sixty shares at annual or special meetings. Besides the ordinary fire risks it was authorized to insure against perils of the seas and of inland navigation. In 1856 the capital was increased to \$300,000, and in 1857 the name was changed to the Bridgeport Insurance Company. At the close of 1857 the company claimed to have assets valued at \$367,000, with liabilities present and prospective of \$70,000. At this juncture the comptroller of New York refused to renew its license to do business in that state, not on account of the slight technical impairment of the capital, but because its securities were of doubtful character. On the assurance of the officers that its affairs were in sound condition, the comptroller finally consented to recall his adverse decision on the understanding that an agent of his own selection should be permitted to make a full examination of its affairs. Early in February he appointed Samuel B. Ruggles.

Nathaniel Green, acting president of the company, on the 17th of March submitted to Mr. Ruggles his sworn statement that Joseph Richardson, an original director of the company and still a director, had in 1857 given to the company bonds of sound corporations amounting to \$98,000, in exchange for \$26,000 of its own stock, and \$150,000 in the stock of the Hudson County Paint Manufacturing Company, and that the transfer was absolute and unconditional. To the affidavit Richardson appended his certificate setting forth that the statements were correct.

Mr. Ruggles left Bridgeport apparently satisfied. A few days later Richardson, trembling for the safety of his securities, turned up in Albany for the purpose of denying the truth contained in the affidavit and certificate. He alleged that he could not read writing and had been deceived by Green. With this new light the commissioner reported, April 20, 1858, that the company did not possess the amount of capital, \$150,000, required by the statute, unimpaired to the extent of twenty-five per cent., and that in his opinion its affairs were in an emphatically unsound condition. From the evidence submitted by Mr. Ruggles the comptroller was convinced that nearly all the assets of the company of much real value were not in fact the property of the institution. He accordingly revoked the certificate given conditionally a few months before.

In 1857 the company was excluded from Massachusetts, the commissioners explicitly cautioning the public against making any further engagements with it.

Driven from two important states, and discredited elsewhere, it went into insolvency May 27, 1858. Philo C. Calhoun was appointed trustee.

Presidents were P. M. Thorp, H. W. Chatfield, Thomas E. Courteney and Nathaniel Green. Secretaries: J. H. Washburn and Timothy Hough.

THE CITY INSURANCE COMPANY OF NEW HAVEN

was incorporated in 1850, with a capital of \$100,000. Before proceeding to business, the subscribers were required to pay in ten per cent., to deposit securities for forty per cent., and to give personal security for the balance. At first the company was empowered to issue policies against loss by fire and inland navigation, but in 1855 marine risks of every kind were expressly prohibited. Wells Southworth was the first president, and Henry L. Cannon, secretary. For a number of years they made money, but about the time the war ended the tide had turned and the managers reasoned that their interests would be best served by retiring from the field. Having decided on this course, they closed the affairs of the company, paying in full all claims and 140 per cent. on the cash investment to stockholders.

For nearly ten years the charter lay dormant. In 1874 it was purchased by James M. Mason, E. J. Mason and H. Mason, and the company was revived under the presidency of James M. Mason. The subscribers paid in the capital, as required by the original act, \$50,000 in cash and in pledges of securities, and \$50,000 in stock-notes. It confined its operations to the home field, and, after a trial of two years, again retired from business without loss of principal to the parties who risked their money to repeat the experiment.

THE CONNECTICUT FIRE INSURANCE COMPANY (HARTFORD).

This institution was organized in June, 1850, with a capital of \$200,000, of which ten per cent. was paid in cash, and ninety per cent. in stock-notes. On the 29th of the month the stockholders elected as directors Joseph Trumbull, Benjamin W. Greene, James B. Hosmer, David F. Robinson, Julius Catlin, Harvey Seymour, Edwin D. Morgan, James Dixon, Edmund G. Howe, Tertius Wadsworth, Timothy

M. Allen, John L. Bunce and Edson Fessenden. The same day Benjamin W. Greene was elected president, and, July 4th, John B. Eldredge was appointed secretary.

By a policy deliberately adopted and consistently pursued, the management restricted the operations of the company to non-hazardous risks, subordinating ambition for large receipts to desire for safety. For similar reasons, agencies were planted with caution, and chiefly in towns with well-equipped fire departments. By the end of June, 1855, total dividends in cash amounted to \$10.50 per share, while \$15.00 per share had been endorsed on the stock-notes. At this time the directors voted to raise the cash capital to \$100,000 by calling for an instalment of twenty-five per cent., payable on or before July 28th. Thenceforward it became the settled policy of the company to extinguish the stock-notes by the application of net earnings, which were devoted exclusively to that end. On the 16th day of July, 1859, the task was accomplished, and the shares became fully paid, sixty-five per cent. having been contributed from profits. At the end of the year assets in round numbers amounted to \$231,000; liabilities, including re-insurance reserve, to \$32,600; gross premiums for 1859, to \$78,000; and gross income, to \$90,000.

At the end of the first decade the company had made enough on a small but carefully conducted business, to virtually pay ninety per cent. in instalments on the stock. It had sixty-three agents, a surplus of about \$4,000, and a premium income of less than \$80,000.

In October, 1865, Benjamin W. Greene resigned, and Mr. Eldredge was elected president. Mr. Greene had been an active director in the Protection, and had earnestly but vainly protested against the policy which ended in its destruction. He was born in 1801 at Uxbridge, Mass. At the age of fourteen he moved to Windsor, Vt., and thence to Hartford, where he had a saddle and harness factory on Pratt street, with James B. Hosmer for a silent partner. Warned by the fate of the Protection, he studiously shunned its errors. Of his conservatism it was facetiously said that if he insured a load of pig iron in a ten-acre lot, he would lie awake nights fearing it would take fire from spontaneous combustion. He died soon after his resignation.

Martin Bennett, who, fresh from college, entered the service of the company as general agent and adjuster in August, 1860, was elected secretary, October 23, 1865. Two years later, in December, 1867, Charles R. Burt was made assistant secretary.

In 1871, after twenty years of continuous prosperity, the company was brought to the brink of destruction by the Chicago fire. Its losses far exceeded its assets. Payment in full was out of the question. Two courses only lay before it, either to go into bankruptcy and give up all, including good will and a well-established business, or to compromise with the policy-holders in that city. Amid the confusion and jar of conflicting interests a committee of seven had been selected to represent the sufferers. They were men of such character and standing that their decision was accepted as final. To them were presented the proposals of the companies that had anything to offer between complete surrender and payment in full. M. Bennett, Jr., its secretary, made a determined effort to secure a settlement for the Connecticut and succeeded. The facts were a matter of record. Official returns showed assets and liabilities on the first of January. Nine months of ordinary business could not greatly change the figures. So far as the local situation was concerned, the committee had a list of the policies, and of the loss under each. If the company went on, it must carry all the risks on its books, and pay in full subsequent losses. Two apparent elements of uncertainty entered into the question: the effect on prices of the large outpour of securities from companies forced into insolvency, and the fatality of existing risks.

Mr. Bennett believed that the company could pay thirty-five per cent. and go on. The committee, after a careful examination, concluded that the proposal was fair to all parties and accordingly endorsed it. Policy-holders accepted the decision as equitable, the money was paid, and thus the Connecticut was enabled to save both its charter and its plant.

During the next few months general conditions greatly favored the insurance interest. The absorption of securities by newly-formed companies, and by the fresh capital put into those that survived, held up prices beyond expectation and thus added to the salvage. On account of higher rates and diminished facilities the insured carried an increased percentage of risks, and hence used greater care in guarding against fire. For a time premiums rose above and losses fell below the average. From both causes the Connecticut derived unforeseen benefits from its settlement.

Underwriters were taught by the hard lesson, that the day of small companies had gone to return no more, and accordingly, after the removal of the *débris*, the Connecticut reorganized with a fully paid capital of \$500,000. A year later, the Boston conflagration called for \$132,580, but within a few weeks the premium income more than repaired the loss. January 28, 1873, Mr. Eldredge resigned the presidency. The same day Martin Bennett was elected to fill the vacancy, and Charles R. Burt was made secretary. On the 28th of the following June, James H. Brewster was elected assistant secretary.

Mr. Eldredge remained an active member of the directory till his death in June, 1882. In early life he was connected with the press, having edited the *Connecticut Sentinel*, in New London, and the *Springfield Whig*. In 1835 he established in Hartford the *Patriot and Democrat*, which was later merged in the *State Eagle* and under that name expired in 1842. He was appointed marshal for the state in 1840, and after retiring from office engaged in the boot and shoe trade. During life he gave to various charities with a liberal hand and left a large estate.

In November, 1876, the company voted to increase the capital to \$1,000,000. An extra dividend of \$20 per share was voted in December to apply on the new stock, and the remaining eighty per cent. was paid in cash. On January 1, 1877, its statement showed a net surplus of over eighteen per cent. on the enlarged capital.

After twenty years of continuous and faithful service Mr. Bennett resigned the presidency October 11, 1880, to take the general management for the United States of the Lion and Scottish Union. Mr. Brewster also resigned the same day. On the 16th J. D. Browne was elected president. February 1, 1881, L. W. Clark, late president of the Meriden Insurance Company, was elected assistant secretary.

Born at Plainfield, Conn., August 26, 1836, at the age of twenty-one Mr. Browne moved to Minneapolis, where with youthful ardor he engaged in business. He was selected to take the electoral vote of Minnesota to Washington in the fall of 1860. During the administration of President Lincoln he was chief clerk in the office of the surveyor-general of public lands at St. Paul. In 1865 Mr. Browne returned to the East, becoming general agent and adjuster for the Hartford Fire Insurance Company in 1867. Three years later he was elected secretary of the company, and held the position till called to the presidency of the Connecticut.

The home office of the Connecticut, completed in 1885, is one of the most notable structures in the city, combining beauty and utility to a degree rarely attained. The location at the corner of Prospect and Grove streets, within a block of City Hall Square on the north, and Main street on the west, is central, quiet, and in every way desirable. It is built of brick, brown stone and terra cotta, after the

The main hall of architecture, fifty-eight by one hundred and twenty feet, two stories in height, with an hexagonal tower of three stories, every part of which is arched. The general office, forty by forty-five, with ceiling twenty feet high, lighted and ventilated by these arches, is not only admirably adapted to the present requirements of the business, but will answer equally well, when its magnitude shall have expanded some of the work. Directly in the rear of this is placed the vault, twenty feet square in section and twenty-two feet high, so arranged with galleries and light openings as to afford a maximum of available and easily accessible space. Underneath is a vault of equal length and breadth, which will ultimately be adapted for storage purposes. The vestibule, the rooms of the directors and president, and the large offices, all finished in hard woods, are models of quiet elegance. The company's safe, the safe for the directors, and all the supplies of a large insurance company are stored in the vault within its walls. Built upon land advantageously situated, and when the cost of material and labor was low, the enterprise was planned to provide every desirable convenience at the equivalent of a small cost.

From the date of organization in 1871, the history of the Connecticut is the history of a successful enterprise, which, though bare of dramatic incidents, is of a kind to bring satisfaction to patrons and solid satisfaction to shareholders. The figures show a steady increase of \$1,483,480.02, \$2,347,692.99 and \$3,300,017.88 on the 1st of January in the years 1880, 1890 and 1897 respectively; and at the same dates a net profit of \$122,042.14, \$522,254.96 and \$668,331.50, and for the years preceding the same dates dividends of \$399,348.07, \$1,069,531.04 and \$1,724,851.53.

For the year prior to January 1, 1897, all dividends were paid exclusively out of profits from assets, and a balance of over \$325,000 from this source alone was placed in a general fund for the protection of policy-holders.

Charles K. Burr, secretary, has been identified with the company from boyhood, having, after an active connection with the local agency for several years, entered the company as clerk in 1865, at the age of twenty. In December, 1867, he was made assistant secretary, and in January, 1873, secretary. Though still in the prime of manhood, he was a patriarch among local underwriters, very few surviving who were active in the business when he joined the ranks.

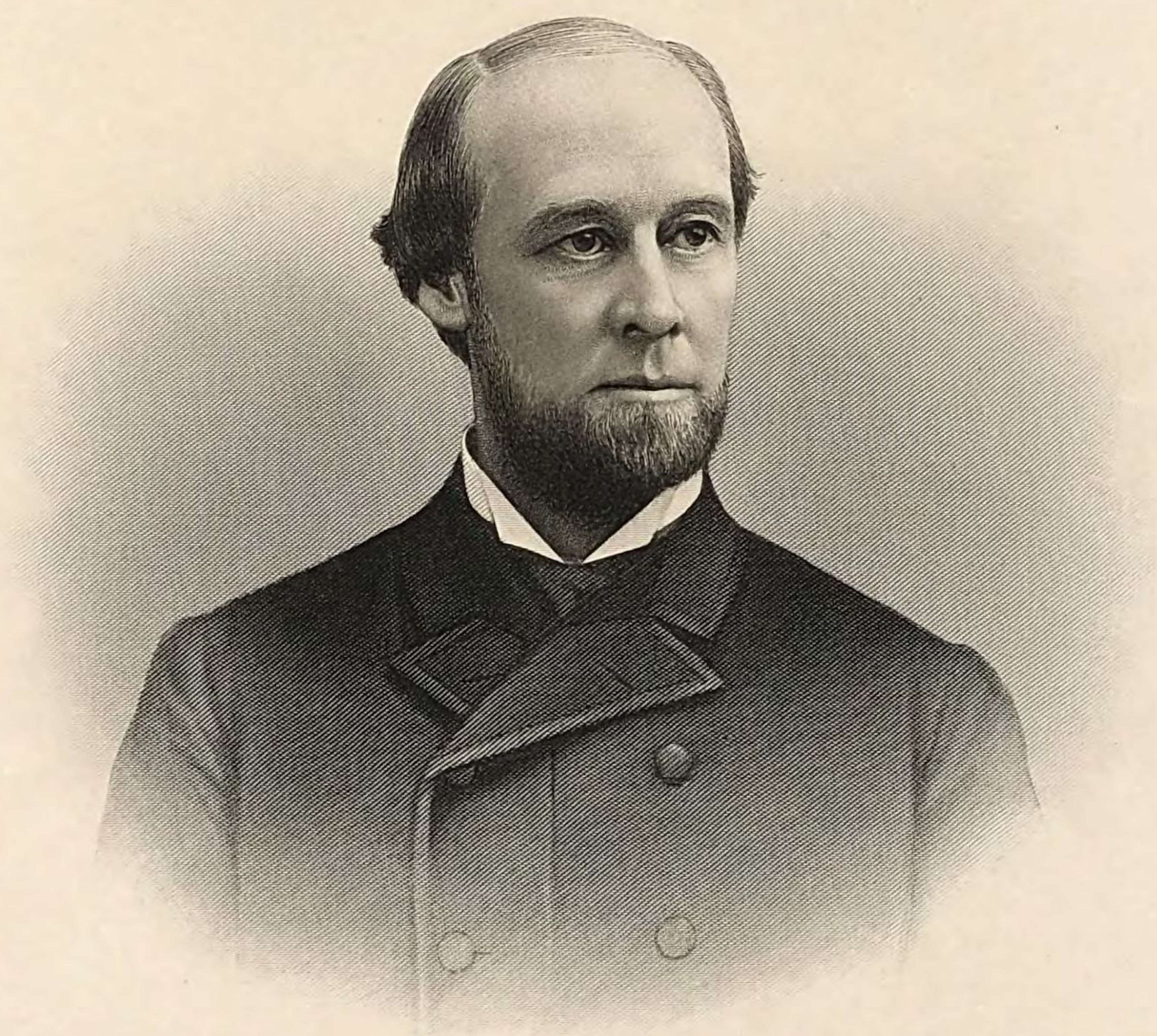
Walter Clark, born in Cornwall, Conn., entered the insurance field in 1865, as special agent for the Home of New Haven. Shortly before the Chicago fire of 1871 he held the vice-presidency of the Enterprise of Philadelphia, which went down through losses incurred by that calamity. After a brief term as special agent with the Springfield Fire and Marine, he accepted the presidency of the Meriden, but resigned in 1881 to enter the Connecticut.

Abram Williams, a man of mature judgment, who had been at the head of the eastern department from the time of its formation, died at Chicago in January, 1897.

Robert Dickson manages the Pacific department, from San Francisco. The business of the Atlantic and Gulf states, inclusive of Ohio, is managed from the home office.

THE PHOENIX FIRE INSURANCE COMPANY (HARTFORD).

In 1841 the late Henry Kellogg was bookkeeper of the Connecticut Mutual Life. On the death of its Boston agent, he applied for the vacant place, believing that he had fairly earned promotion. To his chagrin, the situation was given to another, whose record for the company was yet to be made. By way of explanation, he was told that he could not be spared from the position he then held. Sensitive, ambitious, and conscious of capacity, he concluded that if his services were so valuable to



J. D. Brown

others, the time had come to make them more valuable to himself. On a survey of the field, he felt that a new fire insurance company in Hartford could be made a success—possibly a striking success. Friends caught his enthusiasm, and promised their aid. Thus encouraged, he selected the corporators of the Phoenix, drew the charter, and saw it safely through the legislature.

By the terms of the charter the capital was placed at not less than \$100,000, with the privilege of increase to any sum not exceeding \$300,000. Books were opened by the corporators June 21, 1854, and stock to the amount of \$100,000, the limit agreed upon, was subscribed at once. The same day the subscribers elected the following directors: Chester Adams, Erastus Smith, Nathan M. Waterman, John A. Butler, William Faxon, Samuel B. Beresford, Elisha T. Smith, James C. Walkley, Lyman Stockbridge, Edwin T. Pease, Joseph Merriman, Nathaniel H. Morgan and Ralph Cheney.

Before adjournment the stockholders voted to increase the capital to \$200,000. One week later, June 28th, the books were reopened and the additional shares eagerly taken. There were then one hundred and three separate subscriptions.

Mr. Kellogg took the secretaryship with the view of making the development of the enterprise the work of his life. As a matter of convenience Nathaniel H. Morgan consented to act as president temporarily till a man possessing the requisite technical knowledge and other needed qualities could be found. Mr. Morgan, the fourteenth of seventeen children, was born June 8, 1805, in Salem, then a part of Colchester, whence the family moved to Lebanon in 1814. Having settled in Hartford, as merchant, captain in the coasting trade, a trusted servant of the town in different offices, a student of genealogy and local history, he filled a long life with a great variety of useful work. Through his efforts the Halls of Record were built at the corner of Pearl and Trumbull streets.

At the time of subscription \$10 per share were paid in cash, and soon after the remaining ninety per cent. was secured by stock-notes. At the end of the first year, or more exactly June 27, 1855, Simeon L. Loomis was elected president. From the *Ætna* he had gone to New York city to organize the Home Insurance Company, but gladly accepted the invitation to return to Hartford. Messrs. Loomis and Kellogg, working in complete harmony, mapped out the policy which the company has since pursued without deviation or faltering. On the failure of the Protection in September, 1854, the Phoenix secured some of its best men at the West and a fair share of its business. Strengthened by the profits of the first year the president and secretary determined not to confine operations to our cities or older settlements, but to occupy as fully as possible the long fringes of our frontiers. The Phoenix took the lead in planting agencies up and down the Pacific coast. Till then merchants and others even hundreds of miles distant were compelled to procure insurance through their correspondents in San Francisco. The brothers R. H. and H. M. Magill were specially active in pre-empting territory on both sides of the Rocky Mountains.

Unlike its elder brothers, the Hartford and *Ætna*, the Phoenix did not pass through a prolonged period of infancy, but by a few stalwart bounds leaped into the strength and responsibilities of manhood. On the 15th of June, 1855, a dividend of \$20,000 was endorsed on the stock-notes, and six months later a second of equal amount was similarly applied.

But the exigencies of the situation did not permit the delay required to pay the stock-notes out of profits even at the rate of ten per cent. semi-annually. Numerous failures among fire insurance companies gave rise in various quarters to more stringent legislation, and several of the states passed laws permitting only those whose

capitals were fully paid in cash to do business within their borders. Accordingly, on the 25th of February, 1856, the directors voted to call in the remaining seventy per cent., and by the 28th of March the money was all in the treasury.

Having obtained legislative permission, the capital was increased to \$400,000, in June, 1859, one-half contributed from profits and one-half called in cash. It was again increased in 1864 to \$600,000 by an issue of new shares at par.

Mr. Loomis passed away August 23, 1863, beloved by his associates and highly respected by the community. He was a skillful underwriter, versed in the intricacies of the profession, cautious yet bold, careful in forming plans, but vigorous in pushing them. He was an admirable correspondent, and if occasion required could discipline an agent so gently and dexterously that the victim often took the lesson with pleasure as well as profit.

August 27, 1863, Mr. Kellogg was elected president and William B. Clark secretary. In 1867 Mr. Clark went to the *Ætna*, and was succeeded, December 1st, by D. W. C. Skilton. The same day George H. Burdick was elected assistant secretary. Asa W. Jillson was made vice-president in April, 1864.

In 1871 the Phoenix had accumulated over \$1,900,000 of solid assets, which enabled it to pay in full at Chicago losses, under two hundred and eighty policies, amounting to \$937,219.23. At the request of President Kellogg, Marshall Jewell, a large stockholder and a director, happening to be in Detroit at the time, hurried thither to look after the interests of the company. A feeling of despair pervaded the city. Thousands of homeless people were encamped on the outskirts, without money, without hope, and almost without clothing and food. In a calamity so unlooked for and so overwhelming, and hence so far removed from the hazards contemplated in the business of underwriting, the sufferers believed their policies to be nearly or quite worthless. Press dispatches, laden with painful rumors, deepened the despondency.

On the morning of October 13th Governor Jewell stood on the banks of the river overlooking three thousand flame-swept acres from which a mighty city had vanished. Around was a surging, sullen, half-crazed, despairing crowd, which seemed to feel that even the foundations of the earth were crumbling with the destruction of their fortunes. Aware that the Phoenix had both the means and the will to meet every claim, Governor Jewell, not less prompt to act than quick to see, lost no time in making known the purpose of the company. Mounted on a dry-goods box with a smile in itself a benediction, he announced that the Phoenix would pay all losses in full, and offered to draw his check on the spot for any claim approved by H. M. Magill, general agent of the western department. Shortly policy No. 10,752, for \$10,000, was presented by Isaac C. Day, when, as director, Mr. Jewell drew on the company for the full amount, less interest for two months—the term allowed for payment.

Though the remarks of Governor Jewell contained no suggestion of oratorical display, no other speech ever delivered in the Lake City compressed into a few words so much cheer and helpfulness, or changed so quickly and effectively the temper of the people. The draft bears date October 13, 1871. Immediately the *Tribune* dropped from its window a huge placard, announcing that the Phoenix, of Hartford, had begun to pay its losses in full. As the news spread from one to another, the multitude cheered, and cried, and laughed by turns. From overburdened hearts the vapors began to roll away, as even then clouds of smoke were drifting from the scene, and, as if her baptismal name had been selected in anticipation of the event, both company and city rose from the ashes stronger than before.

The 8th and 9th of October, 1871, are also memorable in insurance annals on account of the simultaneous forest fires in Michigan and Wisconsin, which drew from the coffers of the Phoenix \$50,176.73, making the total losses for the two days \$987,395.96, or one hundred and sixty-four per cent. on its capital stock. After meeting without delay these extraordinary demands, the company had nearly a million of assets left, but to repair the reserves required by law, the capital was reduced December 1, one-half, to \$300,000, and immediately restored through subscription of stockholders. Although the Boston fire, November 10, 1872, called for \$385,956.18 more, the burden was met without assistance from the shareholders.

January 1, 1876, the company had gross assets of over \$1,900,000 and a net surplus of \$385,000. Six months later the capital was raised to a million, an extra dividend of fifteen per cent., or \$90,000, having been applied toward payment of the new issue. In 1881 it was made two millions by cash subscriptions.

The company was organized in a rear room of the office of Wm. H. Imlay, on the second floor of "Union Hall," afterwards demolished to make place for the building of the Connecticut Mutual Life. For a few months the same room was used for an office, till in December quarters were taken at No. 275 Main street, on the second floor. In December, 1862, the office was moved to "Hill's Block," No. 333 Main street. To secure the facilities required for a rapidly growing business the company decided to build, and in November, 1873, moved into the ample quarters which it owns as well as occupies.

From enfeebled health Mr. Jillson resigned in August, 1888, and died April 21, 1893. Born in Boston in April, 1823, he spent most of his early life in Willimantic, Conn., the Jillson family having been largely the pioneers in building up the manufactures of that thriving borough. For fifteen years from 1847 he was agent for the Connecticut Mutual Life, and for two years agent of the Hartford Fire.

For the same cause Mr. Kellogg also practically retired from all active participation in the affairs of the company in August, 1888, but remained honorary president till his death, January 21, 1891. He was born of sea-faring stock at East Hartford, September 9, 1820. In early life he was clerk on the Vanderbilt steamboats. In 1849 he entered the office of the Connecticut Mutual Life. From 1854 his energies were devoted to the company which he founded and ardently loved. Active in organizing the National Board of Underwriters, he always sacredly observed every express and implied obligation which membership involved. In the conduct of the Phoenix there was never the slightest discrepancy between profession and practice. When Mr. Kellogg subscribed to an agreement it was with the intention of keeping it both in letter and in spirit. Independent himself, he liked independence in others, and was pleased to have his own views combatted by an intelligent adversary. Acting the part of a public-spirited citizen he was connected with various enterprises, having held among other places the presidency of the Hartford Trust Company.

D. W. C. Skilton was elected vice-president and acting president August 1, 1888, and retained the secretaryship till September 11th, when George H. Burdick was promoted to that position. Born at Plymouth Hollow, Conn., January 11, 1839, Mr. Skilton came to Hartford in 1855, and after a probation of six years in the dry-goods trade entered the office of the Hartford Fire, October 24, 1861. In August, 1862, he enlisted, was appointed second lieutenant, and at the expiration of the term of service was mustered out as first lieutenant, when he returned to his former place which had been retained for him. Of the National Board of Underwriters, Mr. Skilton was three years secretary; seven, vice-president; and three, president.

Mr. Skilton has always been a firm believer in the efficacy of organized effort and hence has cheerfully given much time and thought to the upbuilding of the National association. He entered it so early and has maintained the connection so closely that nearly every representative whom in those days he was wont to meet has passed away, and present members, though no younger than himself, regard him as a veteran. He was selected by the New York City Association of Underwriters to represent the Connecticut companies on the committee which prepared the standard policy for fire insurance. By many states this form has been adopted and made obligatory.

J. H. Mitchell was elected second vice-president September 11, 1888, and vice-president February 2, 1891; Charles E. Galacar, assistant secretary March 10, 1888, and second vice-president February 2, 1891; John B. Knox, assistant secretary October 1, 1891.

Up to January 1, 1897, the Phoenix had received for premiums \$65,137,672.81 and paid in losses \$39,739,174.81, or by decades:

	PREMIUMS.	LOSSES PAID.
First year,	\$39,053.74.....	\$12,745.29
Tenth year,	463,419.28.....	285,614.06
Twentieth year,	1,512,710.02.....	760,255.95
Thirtieth year,	2,038,470.52.....	1,290,204.81
Fortieth year,	3,507,580.82.....	2,206,976.70

Assets at the end of the first, tenth, twentieth, thirtieth and fortieth years were \$212,896.61, \$925,902.97, \$1,852,894.12, \$4,316,957.91, \$5,588,058.07 respectively, and January 1, 1897, \$5,320,265.42, with a net surplus, \$730,511.57.

George Harrison Burdick, born at Granville, N. Y., December 17, 1841, after a partial course at college, at the age of nineteen entered the office of the Phoenix, where, as clerk, assistant secretary and secretary, he spent the remaining years of his life. He died suddenly at Heidelberg, Germany, July 2, 1896, having left home about a month before.

Mr. Galacar resigned in the fall of 1896 to take the vice-presidency of the Springfield Fire and Marine. Officers, January 1, 1897, were D. W. C. Skilton, president; J. H. Mitchell, vice-president; Edward Milligan, secretary, and John B. Knox, assistant secretary.

Capt. J. H. Mitchell was born in Venango county, Penna.; served in the late war; shared in several battles, including Chancellorsville and Gettysburg; was afterwards a merchant; entered the insurance business about a quarter of a century ago, first as local and later as special agent of the Niagara; joined the special corps of the Phoenix in 1884, and came to the home office, as above described.

Edward Milligan, born at Haddonfield, N. J., June 1, 1862, began work while a boy as clerk in the local insurance agency of Kremer & Durban, of Philadelphia; was later surveyor of the Ætna, of Hartford, in the same city; in November, 1888, became special of the Phoenix for the middle department, and was elected secretary in September, 1896.

John B. Knox, born in Hartford, April 30, 1857, after one year in the local insurance agency of W. F. Rice & Co., entered the office of the Phoenix September 15, 1873, and having been clerk, adjuster and special agent for Western New England, was elected assistant secretary September 24, 1891.

The Phoenix has three departments. H. M. Magill conducts the Western from Cincinnati; A. E. Magill the Pacific, from San Francisco; and Smith & Tately, the Canadian from Montreal.

THE STATE FIRE INSURANCE COMPANY OF NEW HAVEN.

The above company was incorporated in 1855. The capital stock was fixed at not less than \$100,000, with the privilege of increase to any sum not exceeding \$200,000. Subscribers were required to pay an installment of ten per cent. at the time of subscribing, and within sixty days thereafter to secure the payment of the remaining ninety per cent. either by mortgages of real estate or by endorsed promissory notes, payable within ninety days after demand, by order of the directors. The board was also empowered, at discretion, to require payment in cash on the ninety per cent. thus secured.

For about two years the charter was unused. In the summer of 1857 the company came before the public by opening an office in New Haven. Nothing in its records throws any light upon the time, place, or manner of organization. It started with a nominal capital of \$150,000, all held by New York parties. This was made up of mortgages, of a character to be described hereafter, to the extent of \$102,500, and of endorsed promissory notes amounting to \$47,500. Thus far not a dollar in cash had found its way into the treasury of the concern, yet certificates for full paid stock were issued to the manipulators.

In November, 1857, the directors voted to increase the capital to \$200,000, and appointed a committee to attend to the matter, which reported on the 8th of February following, that the additional capital was all received and in possession of the company.

Meanwhile, at a meeting of the directors held January 5, 1858, a committee, of which Benjamin Noyes was the active spirit, was appointed to dispose of fresh stock to the extent of \$47,500, to take the place of a like amount embraced in the original output, and represented in the assets by promissory notes. Through some understanding with the New York parties, their certificates were returned in exchange for their personal obligations. Noyes presented the prospects of the enterprise in such a rosy light that sundry persons were induced to come into it in a somewhat vague and shadowy way. Under the proposed arrangement new subscribers were to draw double income—dividends on the insurance stock issued to them and also on the collaterals of which they still retained ownership, though apparently turning them into the treasury in payment of their subscriptions.

On the 1st of April, 1858, a single share of stock each was issued without consideration, to eleven citizens of New Haven to qualify them to act as directors. Most of the gentlemen singled out for the distinction were not notified by the officers, and perhaps some first heard of it when threatened with suits. Early in 1858 the company advertised for business in the local papers and in printed circulars.

Having at length started upon its short but stormy career the company applied for a license to do business in Massachusetts, which was granted April 9, 1860.

Its financial statement was presented to the commissioners by Mr. Augustus O. Brewster, the first incumbent of the newly created office, and a relative of a leading director. On a capital of \$200,000 the gross assets were set down at \$250,795, and the net surplus at \$8,081. The list of securities looked irreproachable, including among the items bank and railway stocks and bonds exceeding \$75,000, issued by institutions of well-known strength. Loans on mortgages of real estate reached \$138,100, and were said by Mr. Brewster to be on city property in New Haven and New York. With childlike confidence in human nature he had, without due inquiry, accepted as true the representations made by Benjamin Noyes, both a director and a kinsman. The statement was sworn to before a notary by John B.

Robertson, president, and G. Farnham Stevens, secretary. Of the twenty directors, seventeen resided in New Haven, several of whom were obviously selected, not to share in knowledge or conduct of the business, but to impart to it by reflected light an air of respectability.

The statement for November 1, 1860, seemed to indicate marked improvement during the interval in the condition of the company, gross assets having increased to \$278,411.92, and the net surplus to \$24,313.26.

In June, 1861, Secretary Stevens suddenly disappeared from New Haven. The news did not reach the office of the insurance commissioner in Boston, through the loudness of the local outcry, but came several weeks later in letters from claimants, unable to collect losses under policies of the company. Mr. Elizur Wright, then commissioner for Massachusetts, lost no time in hurrying to the home office in New Haven. He was there told by the managing directors that heavy losses in New York had absorbed the most available of the assets. He learned, too, that the \$138,100 of mortgages did not rest on city property, but on vast tracts of wild lands in northern New York. Collaterals deposited to secure notes of stockholders to the amount of \$30,000 were said to have disappeared with the lost secretary. With regard to other securities, Mr. Wright was assured that they were kept in bank and were all right. Promise was also made that the notes given by shareholders should be collected at once, and that the company would soon settle in full all claims in Massachusetts.

Hoodwinked, as Mr. Brewster had been before him, Mr. Wright proceeded on to New York city with his suspicions completely allayed. On the return trip, as it was a warm summer day, he decided to take the afternoon boat to New Haven. Here, by mere accident, he happened to overhear the conversation of a little group of fellow-passengers seated near. The line of talk ran along the shady side of things, and they seemed particularly amused at the success of a "job" put up to tide the "State Fire" over a crisis in its affairs. A prophetic perception of the true situation dawned upon him. Visiting the local corporations whose stocks the insurance company had professed to own, he learned that at least \$50,000 of the list which had been included in the sworn statements as assets never belonged to the company, having been hired for show occasions, and to swear by. Four per cent., or \$2,000 a year, were paid to the lenders. In most cases certificates were made directly to the company to heighten the deception. The banks were told that the shares were wanted as a "temporary guaranty," or "preferred stock"—phrases not unpleasant to the ear, and helping to hide the enormity of the cheat behind a veil of mystery.

Detesting fraud and falsehood in every form, Mr. Wright was specially incensed at the deception practiced upon him as commissioner. He not only denounced the officers as rascals—a position which few were inclined to dispute—but also jumped to the conclusion that all the directors must have known about the crookedness, and hence were little less guilty. Accordingly he laid the facts before Hon. E. K. Foster, state's attorney for the county, asking that the officers be prosecuted criminally. He also employed counsel to enter civil suits against the directors for the losses and unearned premiums due to citizens of Massachusetts.

On the 15th of November, 1861, Mr. Foster reported that he was not altogether satisfied that criminal proceedings could be instituted successfully, though there was enough "to justify action," should it be thought advisable to proceed at any time. A few weeks later he wrote to the commissioner thus:

NEW HAVEN, December 9, 1861.

DEAR SIR,—An examination of our law by no means satisfies me that I can successfully prosecute the officers of the State Fire Insurance Company; and, indeed, it determines my mind

quite otherwise except as to the secretary, Farnham Stevens, who has gone to parts unknown. The reason for this conclusion I will state to you the first time I meet you.

Respectfully yours,
E. K. FOSTER.

For several years the commissioner continued to press the several suits. He placed the case against the directors in the hands of Tilton E. Doolittle, Esq., and the following letters will indicate the drift of affairs:

OFFICE OF INSURANCE COMMISSIONERS, BOSTON, January 13, 1863.

TILTON E. DOOLITTLE, ESQ., New Haven, Conn.:

DEAR SIR,—Will you be so good as to inform me by letter what progress has been made in the suit I authorized you to bring against the directors of the State Fire Insurance Company, and what obstacles, if any, stand in its way? I am as desirous as ever to know whether there is law in Connecticut to hold those gentlemen to the oaths, words and figures by which they got business in Massachusetts, and the suit shall not fail through any failure on my part.

Very respectfully yours,
ELIZUR WRIGHT.

In his reply, dated January 16, Mr. Doolittle wrote that the case would be tried at the first jury term of court, either in March or October, and that no obstacle stood in the way.

Nearly two years later, however, having submitted terms for the compromise of a Massachusetts case, which were not accepted, December 28, 1864, he wrote as follows:

“The most weighty reason in my mind, if not the most obvious one, why we should not get a verdict is the high standing and political influence of the defendants. While I do not doubt the law, I have but little faith that a jury will ever agree upon a verdict against these defendants. You may say that they ought to, and all that sort of thing, but the mischief of it is, that the jury have the power and they won’t.”

Mr. Doolittle’s conclusions were certainly correct. Several of the directors were men of very high character. Their names were used without their consent, unless consent is implied from failure to repudiate the connection by public notice. They knew nothing of the affairs of the concern, nor would the managers under any circumstances have disclosed to them its guilty secrets. If the contention of the commissioner prevailed, that directors of companies should be held pecuniarily responsible for the correctness of statements sworn to by executive officers, in a case like this a person for simply neglecting to read advertisements in newspapers, or for failure to inspect the literature put forth to win business, might find himself exposed to heavy penalties.

Benjamin Noyes was elected secretary August 20, 1861. On the 2nd of November following, the company made a voluntary assignment for the benefit of creditors, and Frederick W. Northrop was subsequently appointed trustee in insolvency. As a test case he brought suit against Cornelius S. Bushnell, a director, for the balance due on a stock-note, and obtained judgment for the amount. It was shown that Bushnell was elected without his knowledge or consent. It was not shown that he had taken any part in the direction of the company. The court held that as he had not promptly resigned the position and repudiated the contract into which he had been entrapped, but permitted his name to remain for two years before the public as one of the directors, and had thus contributed to win for the company public trust and confidence, he could not set up as a defense against creditors a previous compromise and settlement with Benjamin Noyes, although the latter had been authorized by the board to settle claims and execute instruments of release. Mr. Bushnell, after

the decision, paid the judgment in full. Others, not directors, were then sued on their stock-notes, and paid more or less to get out of the scrape.

The mortgages on lands in northern New York, that constituted over one-half of the capital, proved worse than worthless, for when sold in foreclosure the proceeds were insufficient to pay the costs.

When the appraisers of the insolvent estate returned to the court in January, 1862, a sworn inventory of assets, the \$278,411.92 of November 1, 1860, had dwindled to a beggarly \$83.49.

The document is a curiosity in the literature of insurance. Falstaff's half-penny worth of bread to an "intolerable deal of sack" would pass for solid diet when compared with the assumption of several millions of risks on assets of \$83.49 invested as shown.

"To the Probate Court for the District of New Haven.

Estate of State Fire Insurance Company of New Haven in said district insolvent debtor.

The subscribers appointed appraisers on said estate, having been legally sworn, have appraised all of said estate, both real and personal, according to its value, and have assisted in making a true and perfect inventory thereof as follows, viz.:

6 arm chairs \$6.00, 1 spittoon .25, 1 pail .05, 1 pair of tongs .10	\$ 6.40
1 wash stand .50, 1 basket .25, 1 card rack .50	1.25
1 envelope rack .62, one twine box .13, 1 Post Office box .25	1.00
Two tin boxes \$1.00, wetting machine .25, one small press .50	1.75
Old paper \$1.00, blank books \$2.00, one stove and pipe \$10.00	13.00
One map of United States \$2.50, one map of Connecticut \$2.00	4.50
One map of New Haven \$2.50, one office desk and fixtures \$10	12.50
One long counter and standing desk \$25.00, pens .25	25.25
Lot of writing paper \$1.00, one picture, basin and tumblers .37	1.37
Duster .05, postage scales .75, gas fixtures and shades \$8 75	9.55
Lot of curtains and fixtures \$2.00, three portfolios .87	2.87
Paper clasps .50, lot of envelopes \$1.00, one ink stand \$1.00	2.50
One broom .05, step ladder \$1.50	1.55

\$83.49

WILLIS BRISTOL, } Appraisers.
ALFRED DAGGETT, }

F. W. NORTHROP, Trustee.

Received, sworn to and accepted January 17, 1862.

LUZON B. MORRIS,
Judge."

The thought of the projectors is easily divined. If small companies elsewhere, with a small percentage of the nominal capital paid in cash, had attained conspicuous success, why could not their venture, without any cash whatever, meet with similar good fortune? Fraud and perjury certainly did not stand in the way. Had luck been different, the weakness of the beginnings might never have been suspected by the public. But losses in excess of premiums killed the experiment in the bud.

CHAPTER XLVI.

INSURANCE IN CONNECTICUT—*Continued.*

THE MERCHANTS' AND THE NATIONAL (HARTFORD).



ALTHOUGH distinct, the above corporations are so closely identified in the line of succession, that an account of both can best be given in a continuous story. 'The Merchants' was chartered in 1857, with a capital to be fixed at pleasure between the extreme limits of \$200,000 and \$500,000. In the act the old formula was pursued of requiring a cash payment of 10 per cent., and permitting the other 90 per cent. to be secured by stock notes. A book for subscriptions was opened July 2, 1857. Such was the eagerness of the public to take a hand in the venture, that five thousand five hundred and sixteen shares (\$551,600) were at once applied for. Two days later the corporators met and scaled the subscriptions to two thousand shares (\$200,000). On the 7th the following board of directors was elected: Mark Howard, Samuel Woodruff, James Bolter, Ebenezer Roberts, Guy R. Phelps, Timothy Sheldon, James P. Foster, W. H. D. Callender, Sidney A. White, Charles T. Hillyer, Elijah H. Owen, Homer Blanchard, Richard D. Hubbard, Matthew M. Merriman and William L. Collins. The same day Mark Howard was elected president, and E. Thomas Lobdell secretary.

Mr. Howard, traveling agent of the Protection till he gave up the position after striving earnestly but in vain to reform its methods, had been a close observer of the mistakes that led to its downfall. He adopted and pursued a widely different policy. While energy was put forth in planting agencies and soliciting business, care was everywhere taken to confine risks to the less hazardous classes of property. Mr. Howard impressed upon his associates the theory that better results in the long run were likely to follow from carefully-selected lines than from a great volume of premiums.

'The Merchants' was the first company in Connecticut to repudiate the custom of building on a foundation of stock notes—a privilege long embraced in every charter granted by the Legislature. Within five weeks after organization, the directors voted a cash installment of 40 per cent. Similar calls followed at convenient intervals till the shares were fully paid.

For a long period the record tells a story of uniform prosperity enlivened by no dramatic incident. Directors almost ceased to attend meetings. It was even hard to get a quorum to vote dividends, which were paid at the rate of 5, 6 and 8 per cent. semi-annually, till July, 1869, when the rate was raised to 10, or 20 per cent. a year.

Mr. Lobdell died in November, 1870, and was succeeded, January 23, 1871, by James Nichols, general agent of the company.

At the annual meeting in July, 1871, assets were reported to be \$580,270.71. Shares brought \$250. Viewed in the light of experience, the position of the Merchants' was supposed to be impregnable.

In October came the Chicago fire, with losses of \$1,075,643—over five times the amount of its capital, and nearly half a million in excess of its entire assets. Payment in full was clearly impossible. The Merchants' held a number of mortgages on property in the burned district, which not only lessened available resources, but

increased the difficulty of effecting settlements. Probably the best thing for all parties would have been a compromise. All but a small majority of the sufferers were entirely willing to accept the terms offered by the company—terms which would have justified the managers in calling in fresh capital, and thus saving it from destruction. A few held off, hoping by obstinacy to secure larger dividends than their more considerate neighbors. Mr. Howard, with the strong support of Mr. Nichols, took the ground that all should be treated precisely alike. Both had promised parties who signed the compromise that, whether it succeeded or failed, they should receive as much as any other creditor. With them, rising above every consideration of expediency, a promise was sacred and inviolable. Thwarted in their efforts to secure unanimous consent to the terms of settlement by the attitude of a mere handful of policy-holders, the directors, without a dissenting voice, voted to distribute the entire assets of the company *pro rata* among creditors. Everything down to the smallest article of office furniture was sold, and the proceeds thus applied. Those who had already signed full releases received a small additional dividend. But a company of stainless record and brilliant promise was forced out of existence.

An act had been passed in 1869 incorporating the National Fire Insurance Company, but at the time of the Chicago fire no steps had been taken toward making use of the franchise. It was now decided to continue the business of the Merchants' through an entirely new company organized under this charter. Accordingly, books were opened November 14, 1871, and when closed November 20th, six thousand and eighty shares had been applied for. General William B. Franklin, James G. Batterson and Richard D. Hubbard, corporators, named in the charter to receive subscriptions, scaled the allotments down to a total of two thousand.

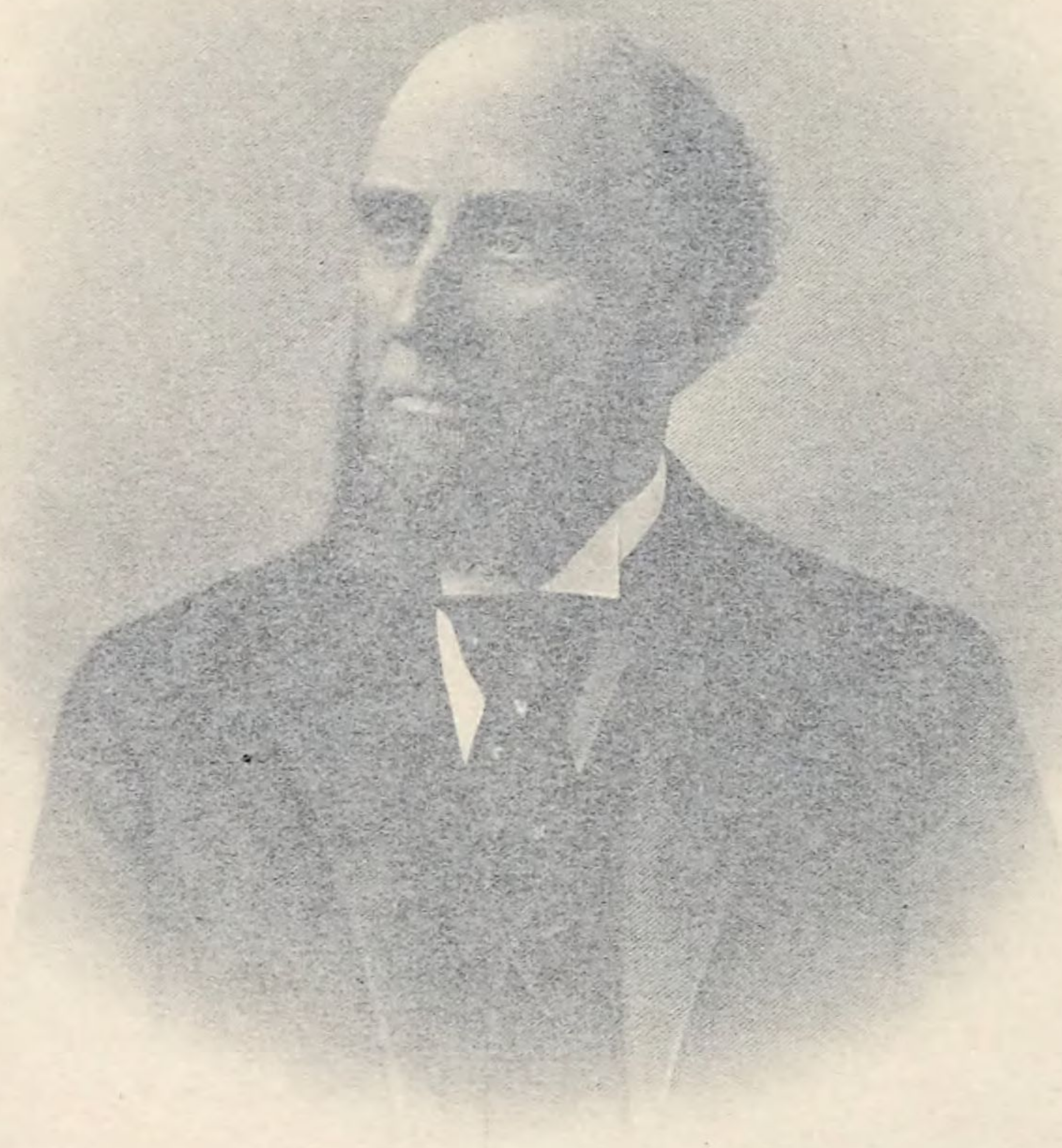
At the first meeting of stockholders, held November 27th, it was voted to increase the capital from \$200,000 to \$500,000 and the following board of directors was elected, *viz.*: Mark Howard, E. H. Owen, Richard D. Hubbard, J. P. Foster, E. N. Welch, James Bolter, Ebenezer Roberts, William B. Franklin, Homer Blanchard, Wareham Griswold, J. F. Judd, D. F. Seymour, Frank Cheney, Harrison B. Freeman, William S. Pierson, Timothy Sheldon and William H. Lee.

The same day Mark Howard was elected president and James Nichols secretary.

Our familiar acquaintance, the stock note, played no part in the organization of the National, the entire capital having been paid in cash.

During the first eleven months of business the National increased its assets to \$623,000. Then followed the Boston fire with losses of \$161,000. To meet the emergency the capital was reduced to \$350,000, and at once restored to the former figures by subscriptions of the shareholders. From that day on its success and growth have been uninterrupted. In 1878 the contribution for Boston was in part returned in a stock dividend of \$100,000 from net profits, and in July, 1881, the capital was further increased to \$1,000,000 by cash subscriptions.

President Howard died January 24, 1887. He was born in Loose, county of Kent, England, May 27, 1817, and came to America with his father and one brother in 1831. The three proceeded to Ann Arbor in the territory of Michigan, where four weeks later the father died. When seventeen years old Mark established a Whig paper at Ann Arbor. While still a minor he was appointed clerk of one of the branches of the legislature and held the place for two terms. As local agent for the Protection Insurance Company he exhibited such admirable qualities that in 1846 he was made its special agent with broad powers of supervision and appointment. It is claimed that he was the first person in the United States to be employed exclusively in the



James Nichols

Massachusetts Abolitionist Co. Everett, Mass.

increased the difficulty of effecting settlements. Probably the best thing for all parties would have been a compromise. All but a small majority of the sufferers were entirely willing to accept the terms offered by the company—terms which would have justified the managers in calling in fresh capital, and thus saving it from destruction. A few held off, hoping by obstinacy to secure larger dividends than their more considerate neighbors. Mr. Howard, with the strong support of Mr. Nichols, took the ground that all should be treated precisely alike. Both had promised parties who signed the compromise that, whether it succeeded or failed, they should receive as much as any other creditor. With them, rising above every consideration of expediency, a promise was sacred and inviolable. Thwarted in their efforts to secure acceptance of the terms of settlement by the attitude of a small body of obstinate holders, the directors, without a dissenting voice, voted to distribute the entire assets of the company *pro rata* among creditors. Everything down to the smallest article of office furniture was sold, and the proceeds thus applied. Their very last words were that all releases received a small additional dividend. The company's record and brilliant promise was forced out of its purses.

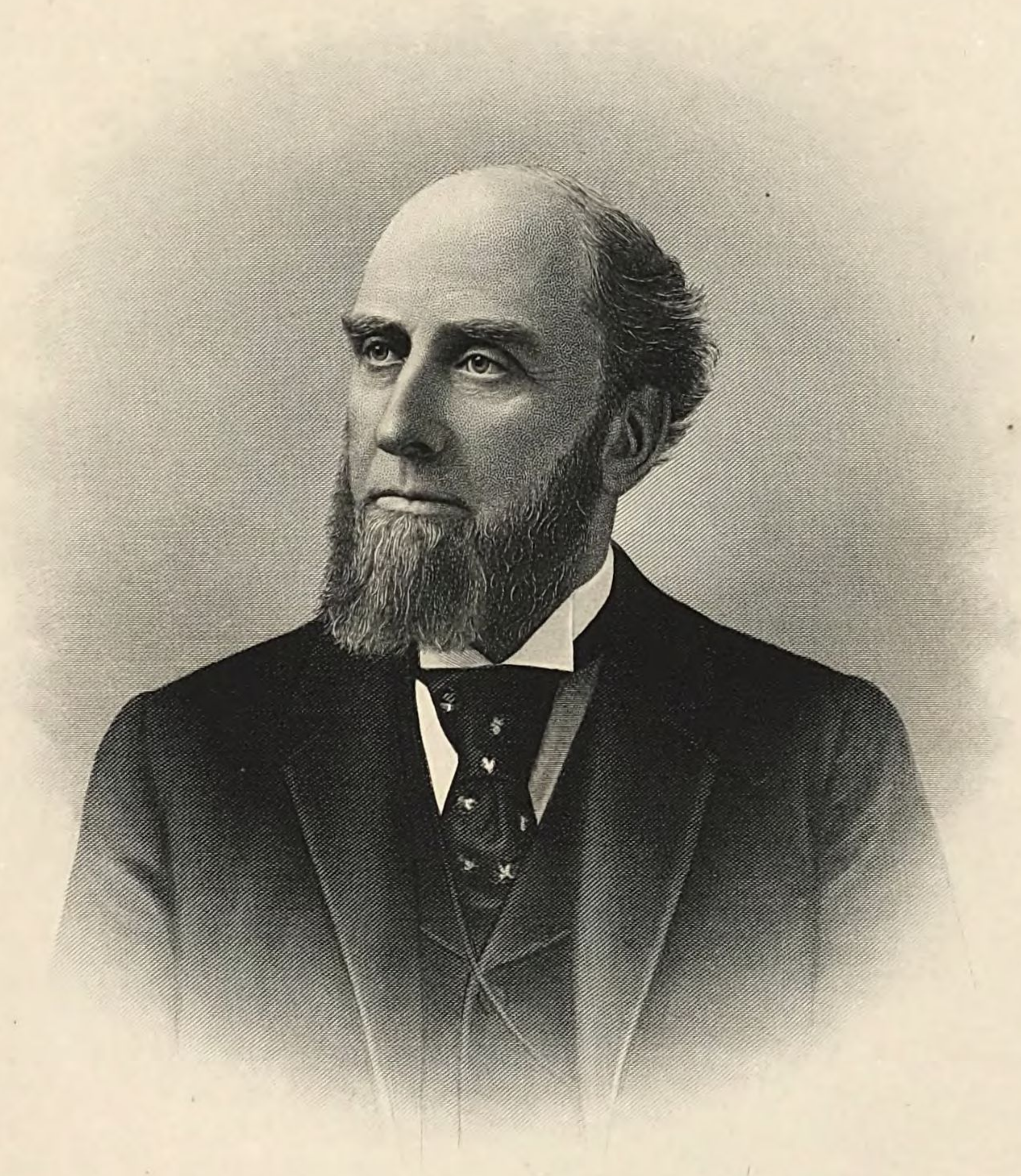
After the fire, the first step in incorporating the National Fire Insurance Company was to organize a new company. No steps had been taken toward making the old company a stock company. It was now decided to continue the business of the Merchant's Fire Insurance Company organized under this charter. Accordingly, books were opened for subscriptions on November 15th, and when closed November 20th, six thousand and eight hundred shares were subscribed for. General William B. Franklin, James G. Bates, and John C. Smith were named as incorporators, named in the charter to receive subscriptions. The total amount of subscriptions given to a total of two thousand.

At the first meeting of stockholders, held November 27th, it was voted to increase the capital of the company to \$400,000 and the following board of directors was elected: John C. Smith, G. H. Owen, Richard D. Hubbard, J. P. Foster, E. N. Webb, James G. Bates, William B. Franklin, Homer Blanchard, Warehouseman, John C. Smith, D. F. Seymour, Frank Cheney, Harrison B. Freeman, William B. Franklin, John C. Sheldon and William H. Lee.

Mr. Howard was elected president and James Nichols secretary. The stock note, played no part in the organization of the company, the entire capital having been paid in cash.

During the first eleven months of business the National increased its assets to \$400,000. Then followed the Boston fire with losses of \$161,000. To meet the emergency the capital was reduced to \$350,000, and at once restored to the former figure by subscriptions of the shareholders. From that day on its success has been uninterrupted. In 1878 the contribution for Boston was in the form of a stock dividend of \$100,000 from net profits, and in July, 1880, the capital was further increased to \$1,000,000 by cash subscriptions.

President Howard died January 24, 1887. He was born in Loose, county of Kent, England, May 27, 1817, and came to America with his father and one brother in 1830. The three proceeded to Ann Arbor in the territory of Michigan, where four years later the father died. When seventeen years old Mark established a Whig paper in Ann Arbor. While still a minor he was appointed clerk of one of the branches of the legislature and held the place for two terms. As local agent for the National Insurance Company he exhibited such admirable qualities that in 1846 he was made its special agent with broad powers of supervision and appointment. It is generally known that he was the first person in the United States to be employed exclusively as a



James Nichols

Massachusetts Publishing Co. Everett, Mass.

field. He now made his residence in Hartford, but traveled up and down our frontiers from the lakes to the Gulf of Mexico by stage and steamer. In the story of the Protection we have told of his visit to St. Louis in the height of the cholera epidemic of 1849, and of his heroism in facing perils from which old residents fled in panic. That one act brought untold credit and business to Hartford insurance interests.

The instruction book which he prepared for the Protection about 1848 marks an epoch in the literature of the science. Speaking of it Charles B. Whiting, president of the Orient, says :—

“ It was much the most elaborate of any before issued and is the basis for all our modern books. Here appear for the first time the definitions of insurance terms. It treats of the ‘ Moral Hazard,’ the ‘ Local and Internal Hazard,’ and gives full instruction for the inspection of risks. Here also appear standards for the rating of a large number of risks ; forms of policy for a great many hazards, and for the first time the three-quarter value clause. This book was the greatest contribution to insurance literature that had been issued up to that time, and very far in advance of any of the others. The definitions are those in vogue to-day, and there has been but little if any improvement on the forms there put forth. Subsequent books are but an enlargement of this. The text for them all is found within its covers.”

He was appointed by President Lincoln first internal revenue collector for Connecticut. He was so fair that appeals were seldom taken from his rulings, several of which became incorporated in the system.

Mr. Howard was a man of lofty ideals. The inspiration of high aims lifted him out of the atmosphere of the common place. Wherever the battle for principle raged hardest he was sure to be found taking blows if need be, but giving sturdy ones in return.

James Nichols, long and intimately associated with Mr. Howard, was elected president February 9, 1887. He was born December 25, 1830, at Weston, Conn. Admitted to the bar in 1854, he settled a year or two later in Hartford, having been made assistant clerk of the Superior Court of the county. In 1861, when the district embraced seven towns, he was elected judge of probate, a position for which he was peculiarly fitted. Attracted by business connections into the field of insurance, he became adjuster and special agent of the Merchants’ in 1867, and three years later its secretary. Anxious as the executive officers were to save the charter of the company after the Chicago fire, both agreed that the end must be reached if at all by treating the strong and the weak precisely alike. Hints from rich claimants eager for an undue share fell upon deaf ears. The result has been told. Mr. Howard was so exhausted by the vexations and labors in which both equally shared that he fell ill and went abroad to find rest. He was still in Europe at the time of the Boston fire, in October, 1872. Mr. Nichols was then in charge, and the gap made in the assets was filled under his direction. Differing in temperaments, Mr. Howard and his chosen lieutenants were alike in inflexible adherence to do what they believed to be right.

In April, 1887, Ellis G. Richards, of Boston, an experienced underwriter, was elected secretary. In March, 1891, Benjamin R. Stillman was elected assistant secretary.

In January, 1888, the National reinsured the Washington Fire and Marine Insurance Company of Boston on all their business throughout the United States, except in Connecticut, New York, Pennsylvania, New Jersey, Delaware, and Maryland ; established a western department at Chicago, and reorganized and enlarged the Pacific department, with headquarters at San Francisco. The transaction added

to the company a large amount of good business, guarantying a large and permanent increase of premium receipts.

In the fall of 1893 at a cost of nearly \$200,000 the company completed its handsome home office upon the corner of Pearl and Lewis streets. It has a frontage of seventy-one with a depth of one hundred and thirty-four feet, and comprises a main building, forty-nine by seventy-one feet, three stories high, and a large wing in the rear, flanked on the Lewis street side by a two-story annex. The building is of fire-proof construction with floors of iron beams and tile arches and with stairways and roof of iron.

During the life of President Howard the growth of the National was slow. His successor, supported by able assistants, has pursued a much more aggressive policy with eminently satisfactory results. Net premium receipts increased from \$521,960 in 1886, to \$2,254,240 in 1896, with an average loss ratio for the period of 52.4; the reinsurance reserve from \$341,677 to \$1,806,990; the gross assets from \$1,958,506 to \$4,120,260. During 1896 net surplus increased \$324,382 to \$1,037,580. Meanwhile annual dividends have never fallen below ten per cent., and have always been paid exclusively out of income from assets.

Ellis Gray Richards, vice-president and secretary, born at Worcester, Mass., December 16, 1848, left school for business at the age of seventeen, and at twenty-one was head bookkeeper for a large iron manufacturing establishment. The concern was so disabled by the panic of 1873, that the next year he took a clerkship in the Boston office of the Commercial Union Assurance Company. Within a few months he was made secretary and surveyor of the Worcester County Board of Underwriters, and in May, 1877, special agent of the Royal and the Pennsylvania for service in New England. In May, 1881, he accepted a similar position in the same field with enlarged responsibilities from the Queen Insurance Company, taking an active part two years later in organizing the New England Insurance Exchange. In the changes that followed the death of president Howard, he accepted the secretaryship of the National in April, 1887, and was elected vice-president in December, 1896.

Benjamin Rhodes Stillman, assistant secretary, born at Adams, N. Y., March 31, 1852, after preparing for Hamilton College, changed his plans and entered the office of Mollison & Hastings, merchants, millers and insurance agents, where soon his time was wholly devoted to the last-named branch. Later he served at the home office of the Watertown Fire and the Sun, till appointed general agent of the Springfield Fire and Marine in 1884, with which he remained six years, resigning in 1890 to take the secretaryship of the Safety Car Heating and Lighting Company of New York City. He came to the National as assistant secretary in 1891.

Fred. S. James supervises the western department from Chicago, and George D. Dornin the Pacific, from San Francisco.

THE CHARTER OAK FIRE AND MARINE INSURANCE COMPANY.

The Charter Oak Fire and Marine Insurance Company, of Hartford, was organized with a capital of \$300,000, July 16, 1856. Ralph Gillett was elected president and Joseph H. Sprague, secretary. During the war the capital was in a state of chronic impairment. In August, 1866, the commissioner of New York revoked its certificate to do business in that state because the impairment exceeded twenty per cent. To restore technical solvency the capital was reduced to \$150,000. At the time of its destruction by the Chicago fire its surplus was nominal. Presidents were Ralph Gillett, B. Hudson, *pro tem*, and Joseph H. Sprague; secretaries, Joseph H. Sprague, Julius M. Sexton, James Goodwin and George Nevers.

THE HOME INSURANCE COMPANY OF NEW HAVEN

Was organized in 1859 on a capital of \$150,000, which was increased in February, 1860, to \$200,000. D. R. Satterlee was elected president and Charles Wilson secretary. For the first two years it did both a fire and marine business, but after January 15, 1862, risks were confined to fire and inland navigation. Progress was slow during the war. At the beginning of 1862 its statement showed an impairment of over \$44,000. The capital was increased to \$500,000 in April, 1864, and in January, 1866, to \$1,000,000, of which \$350,000 were contributed in cash and \$150,000 in a stock dividend. Losses were so heavy during the year that the directors laid an assessment of fifteen per cent., thus replacing the scrip with cash. During the twelve months the price of the shares fell from \$180 to \$100. Although the impairment continued the company paid dividends at the rate of about ten per cent. per annum from the start till near the end. With almost a thousand agents in the field it pushed for business with zeal untempered by discretion.

An official examination of the Home in June, 1870, showed that at least one-half of the capital was extinguished. It was now reduced to \$500,000, and important changes were made in the management. But old wounds were severe, its investments in bad shape, and heavy losses continued. Early the next year it went into liquidation, and General S. E. Merwin was appointed trustee. The wreck proved unexpectedly disastrous, the stockholders getting nothing and the creditors very little. Payment of unjustifiable dividends had caused the shares to be sought as an investment, so that the failure caused much local distress.

Benjamin Noyes, first insurance commissioner of Connecticut, whose experience as dominant director of the State Fire, and as manager of a life company, that under a succession of names went from bad to worse till death closed its career, gave him good opportunities to study from the inside the effects of abnormal methods, in his last report wrote thus of the Home. Wrath that such things should occur at his own door puts a twist into the words through which his feelings find utterance.

"There never was a more reckless business conceived of than may be made out of fire insurance, and when we think of the case of the 'Home' at our own door, we blush for its management, while we strongly endorse the integrity of its stockholders and directors, not that the latter did wisely, or that they were influenced by good counsel as manager, for the result shows they were made to believe by an officer of the company that unearned premiums were profits realized, and that borrowing and returning was an every-day affair, especially, when after receipts seemingly justified the return.

"The rocks which dashed the 'Home,' of New Haven in pieces are all within the soundings we have been taking for the fraternity in former reports, and the only difference which marks the case of this company is its rapidity. After they had doubled their capital twice, doubled their agencies and quadrupled their risks on many classes of property, the business became too large to control, and the losses followed too rapidly to make them known to the directors; as a matter of course confusion and uncertainty soon involved the company in such a dense cloud that the directors, in a state of alarm, ended the matter, as they supposed, by placing the property in the hands of a trustee, to be closed up, for the benefit of the creditors, with no prospect of saving much, if anything, for the stockholders."

THE NORTH AMERICAN FIRE INSURANCE COMPANY OF HARTFORD.

This company was organized in 1857, on a capital of \$300,000, of which the charter required ten per cent. to be paid in cash, while allowing the remaining ninety per cent. to rest on secured notes. However, as one state after another fell into line in refusing longer to recognize the stock note as an asset, it soon vanished. Except in 1862, the company paid dividends without interruption, and for the last three years before its downfall at Chicago, at the rate of twelve per cent. per annum. In

fact, the company was so depleted by dividends that it seldom had a surplus. Presidents were: James G. Bolles, 1857; A. F. Hastings, 1860; James G. Bolles, 1866; W. C. Hastings, 1868. Secretaries: J. A. Wallace, 1857; W. C. Hastings, 1860; J. B. Pierce, 1868.

THE NEW ENGLAND FIRE AND MARINE INSURANCE COMPANY OF HARTFORD.

This company, with a capital of \$200,000, was organized in 1858. Nathan M. Waterman was elected president, and George D. Jewett, secretary. In 1863 Mr. Jewett became president and Robert A. Johnson, secretary. From the start the company struggled against adverse conditions and wound up in 1866.

THE NORWALK MARINE AND FIRE INSURANCE COMPANY.

This company was chartered in 1858, and began business in 1860, on a paid capital of \$50,000. About six years ago a controlling interest in the stock was bought by the London and Lancashire Insurance Company of Liverpool, England, and the organization has since been utilized in the conduct of its American business. The capital was subsequently increased to \$200,000.

THE THAMES FIRE INSURANCE COMPANY OF NORWICH.

This company was organized in 1859. It began with a capital of \$113,700, which was increased in 1864 to \$200,000. It went out of business in 1866, and having settled all claims, paid back to the stockholders about fifty per cent. of the face value of the shares. Amos W. Prentice was president. Secretaries were: O. P. Rice, 1859; B. B. Whittemore, 1864.

THE UNION FIRE INSURANCE COMPANY OF HARTFORD.

This company was formed in 1859, but soon after the beginning of the war retired from the field and returned the capital to the shareholders. Presidents were: J. W. Danforth and Ralph Gillett.

THE PUTNAM FIRE INSURANCE COMPANY OF HARTFORD.

This company was organized September 1, 1864, on a capital of \$300,000. Caleb B. Bowers was elected president, Daniel Buck, secretary, and in October William N. Bowers was added to the official corps as vice-president. After a hot fight the Bowers *regime* was overthrown at the annual election in June, 1865, when Samuel Woodruff, of Woodruff & Beach, boilermakers and machinists—a firm of national reputation during the war—was made president. That residence in Hartford presumptively qualified a person to run an insurance company had become a current superstition. First and last the delusion cost investors and other victims of misplaced confidence a great deal of money. From the start the venture ran behind, and though the pace now and then slackened, the drift was never long reversed. The secretary had no taste for the economies which successful companies in their early days have found indispensable. The president had been willingly lured into a variety of outside schemes. Promoters looked to him for cash. Meanwhile war-contracts had dried up. He borrowed large sums from the company which it was inconvenient to pay. A small over-issue of stock, due to carelessness, as his friends claimed, added to the confusion. Mr. Buck was succeeded by S. G. Parsons in 1868. The next year Mr. Woodruff was forced to retire. In his valedictory he attributed the misfortunes of the enterprise to the mismanagement of the first secretary.

George M. Welch followed as *ad interim* president from January 3rd till August 18, 1870, when Robert E. Day was elected. On probing its wounds the capital was

found to be impaired over thirty-three per cent. It was now reduced to \$300,000, and then raised by cash payments to \$400,000. While the new management was striving to correct past errors the company was destroyed by the great Chicago fire, its losses amounting to \$1,206,000.

THE QUINNIPIAC INSURANCE COMPANY OF NEW HAVEN,
Chartered in 1869, was organized with a capital of \$100,000. J. D. Dewell was elected president, and George S. Lester secretary. In 1871 the company voluntarily retired, paying in full all claims and returning its capital to shareholders.

ORIENT INSURANCE COMPANY (HARTFORD).

Although the charter of the Orient was granted by the legislature of Connecticut in May, 1867, the company did not organize until November 23, 1871, being the lineal successor of the City Fire Insurance Company, which, with most of its contemporaries was blotted out of existence in the holocaust at Chicago. By the terms of the charter, a capital of \$2,000,000 was authorized with the privilege of doing business on a minimum of \$500,000. In view of the enormous drafts upon the resources of Hartford required to pay the losses at Chicago, the corporators thought best to begin with half a million, and to increase as the growth of business might demand.

The first directors were David Gallup, Newton Case, George M. Bartholomew, Charles T. Webster, William Boardman, Daniel Phillips, Augustus S. Jerome, Fred R. Foster, John W. Danforth, Selden C. Preston, James G. Batterson, Thomas T. Fisher, Joseph S. Woodruff, Levertt Brainard, Charles J. Cole, William H. Bulkeley, Knight D. Cheney, George S. Lincoln, Samuel F. Jones, James Campbell and George M. Pullman. The first officers were, Charles T. Webster, president; Selden C. Preston, vice president, and George W. Lester, secretary; these gentlemen having held similar positions in the City Fire, whose agency system the Orient proceeded to adopt.

January 1, 1872, the first policies were written, and a handsome business was assured from the outset. Ten months later came the Boston fire, which took \$164,000 from the Orient, a heavy blow to befall a small company at the beginning of its career. However, it met every obligation by sight drafts, paying all losses in full.

To preserve technical solvency the capital was now reduced to \$350,000. In January, 1875, an extra dividend of \$50,000 in cash was declared and simultaneously turned back into the treasury so as to raise the capital to \$400,000. The process was repeated in January, 1876, and in January, 1877, when out of earnings the capital was fully restored to its original figures. Those were good days for insurance interests, for the ruin of many companies by the Chicago and Boston fires stopped for a time destructive competition.

S. C. Preston succeeded Mr. Webster in May, 1874, and held the place till 1883. In 1881 the capital was raised by cash subscriptions to \$1,000,000. John W. Brooks, a banker of Torrington, who had just completed a term of three years as insurance commissioner of Connecticut, held the presidency from 1883 till May, 1886, when he was followed by Charles B. Whiting.

Mr. Whiting was born of New England parentage at Greenbush, N. Y., September 3, 1828. After passing, both at the east and the west, through rather more than the usual variety of experiences that befall adventurous young men, he returned from the banks of the Mississippi to New York city in 1866, and permanently entered the field of insurance. From October, of that year, till May, 1870, he was secretary of the National Board of Fire Underwriters. Thence he faithfully served the

Home of New York city for ten years, till forced by broken health to seek rest. After recovery and a brief connection with the Springfield Fire and Marine, he came to Hartford in October, 1881, as secretary of the Hartford, and held the place till elected president of the Orient. Mr. Whiting is also a racy and entertaining writer. He has delivered a number of addresses. One, essentially historical, delivered at Niagara Falls, June 9, 1885, has been of great service in the preparation of these papers.

Like mercury in a thermometer the prosperity of insurance interests rises in good times and drops (often to zero) in seasons of adversity. The panic of April, 1893, with its long sequence of failures and disorder, so increased the loss ratio from fires that in the height of the trouble veteran underwriters stood aghast at sight of the ruins. To add to the strain, the assets of companies fell heavily in market value to that extent diminishing their resources. At the time of the outbreak the net surplus of the Orient was too small to carry the company through without impairment. Hence, in December, 1893, the stockholders voted to reduce the capital to \$500,000.

January 1, 1897, gross assets amounted to \$2,215,470.20, and net surplus to \$562,165.37, the last item having increased \$243,769.54 since January 1, 1894. These wide and rapid fluctuations illustrate the vagaries of fire insurance. Statistics cease to guide when the moral hazard breaks loose.

Secretaries have been George W. Lester, 1872–February, 1886; George B. Bodwell, February, 1886–June, 1888; James U. Taintor, June 1, 1888–. Assistant secretaries, George B. Bodwell, October, 1885; Howard W. Cook, June 1, 1888.

James U. Taintor, secretary, was born October 23, 1844, in Pomfret Conn., whence the family moved to Colchester in 1848; graduated at Yale College in 1866; was assistant clerk of the Connecticut House of Representatives in 1866, clerk in 1867, and clerk of the Senate in 1868; for a short time in 1869 belonged to an insurance firm in Meriden; in July of the same year became a special agent of the Phoenix Fire, of Hartford; and in June, 1888, secretary of the Orient.

Howard W. Cook, born in Hartford August 19, 1858, left the high school in his junior year to enter the Orient, where, having served faithfully and intelligently through lower grades, he was made assistant secretary in 1888.

B. W. French manages the western department from Chicago; Trezevant & Cochran, the southwestern from Dallas, Texas; and W. J. Callingham the Pacific from San Francisco.

THE MERIDEN INSURANCE COMPANY.

Incorporated in 1868, was organized early in 1872, with a capital of \$200,000. Jedediah Wilcox was elected president, and E. B. Cowles, secretary. A few months later the Boston fire drew \$36,000 from its assets. While supervising the settlement of claims in that city, the vice-president, L. W. Clark, just about filled the gap with fresh premiums. In 1878 the capital was increased to \$300,000, but it was again reduced to \$200,000 in December, 1881, when its business outside of New England was reinsured in the German-American and Niagara, of New York. In January, 1892, the company reinsured its risks and retired altogether, not from necessity, but because the stockholders saw that the advantages held by powerful rivals would ultimately force small concerns out of existence.

In round numbers, during twenty years, the company took \$2,488,000 in premiums, paid \$1,500,000 in losses, and \$280,000 in dividends.

L. W. Clark was president from 1874 to 1881, when he became assistant secretary of the Connecticut, and was succeeded by A. Chamberlin. E. B. Cowles continued secretary throughout. He then became assistant manager for New England of the Royal Insurance Company, with headquarters at Boston.



Chas. F. Huntington

He remained in New York city for ten years, till forced by broken health to seek rest. After leaving the office of connection with the Springfield Fire and Marine, he came to Hartford in 1871, as secretary of the Hartford, and held the place till 1881. Mr. Whiting is also a racy and entertaining writer. He has written a number of addresses. One, essentially historical, delivered at Hartford, July 1, 1884, has been of great service in the preparation of these papers.

The company is a firm master the prosperity of insurance interests rises in good years and drops (often to zero) in seasons of adversity. The panic of April 1893, with its long series of failures and disorder, so increased the loss ratio from 1890 to 1893 that the trouble veteran underwriters stood aghast at sight of the figures. In 1893 the assets of companies fell heavily in market value and many were unable to carry the company through without impairment. The stockholders voted to reduce the capital to \$500,000.

The assets of the company amounted to \$2,215,470.20, and net surplus to \$243,769.54 since January 1, 1894. These figures illustrate the vagaries of fire insurance. Statistics cease to count when the great hazard breaks loose.

Successors of George W. Lester, 1872-February, 1886; George B. Bodwell, 1886-June, 1888; James U. Taintor, June 1, 1888-. Assistant secretaries: Robert B. Schell, October, 1885; Howard W. Cook, June 1, 1888.

Howard W. Cook, secretary, was born October 23, 1844, in Pomfret Conn., where the family moved to Colchester in 1848; graduated at Yale College in 1866; was assistant clerk of the Connecticut House of Representatives in 1866, clerk in 1867, and clerk of the Senate in 1868; for a short time in 1869 belonged to an insurance company in Sweden; in July of the same year became a special agent of the Phoenix Fire of Hartford, and in June, 1888, secretary of the Orient.

Howard W. Cook, born in Hartford August 19, 1858, left the high school in his senior year to join the Orient, where, having served faithfully and intelligently through four grades, he was made assistant secretary in 1888.

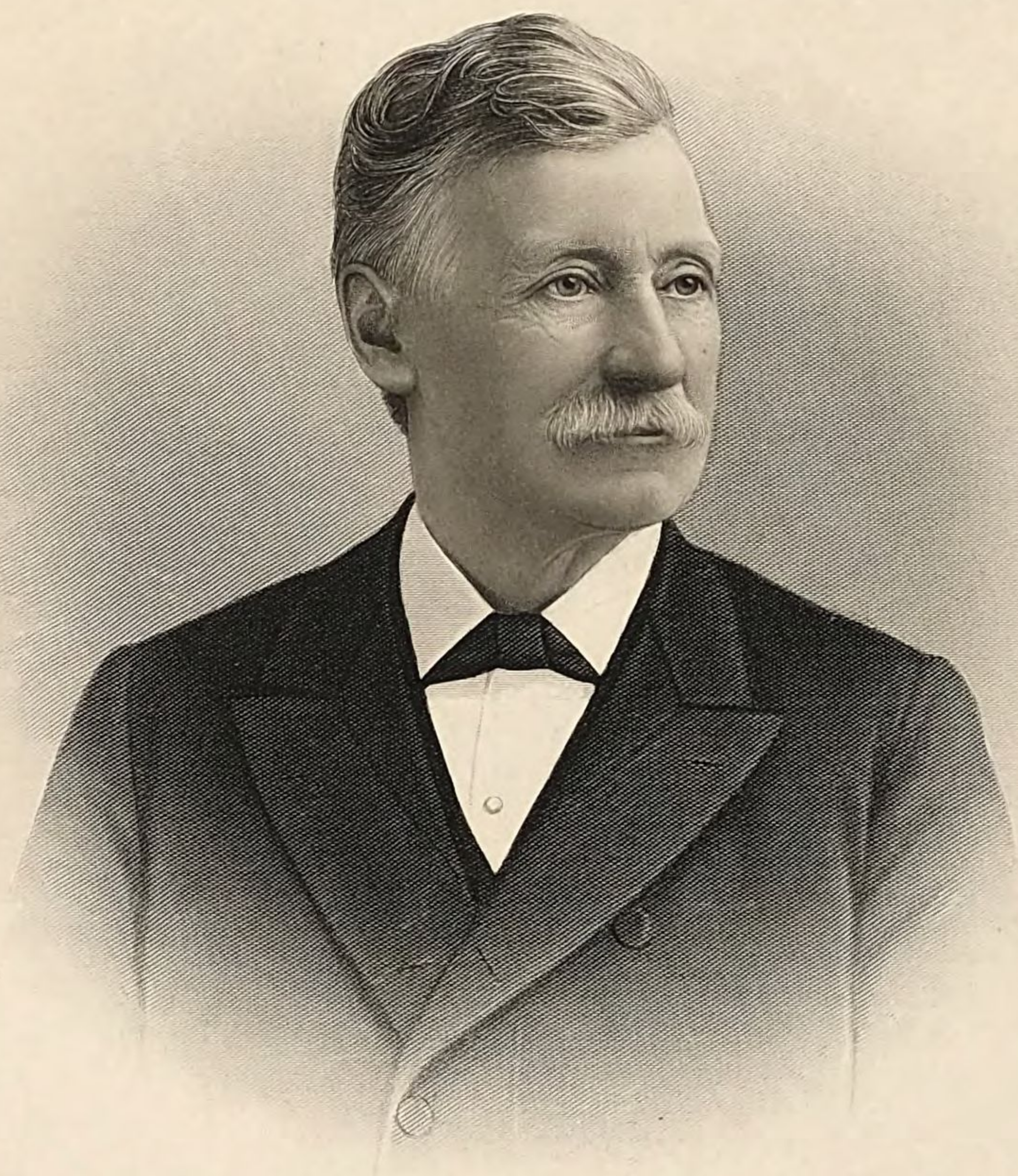
E. W. Cowles manages the western department from Chicago; Trezevant S. Cochran, the southwestern from Dallas, Texas; and W. J. Callingham the Pacific from San Francisco.

THE MERIDEN INSURANCE COMPANY.

Incorporated in 1872, was organized early in 1872, with a capital of \$200,000. Jedediah Whitcomb was elected president, and E. B. Cowles, secretary. A few months later the surplus had risen \$36,000 from its assets. While supervising the settlement of claims in that city, the vice-president, L. W. Clark, just about filled the gap with fresh investments. In 1875 the capital was increased to \$300,000, but it was again reduced to \$200,000 in December, 1881, when its business outside of New England was withdrawn to the German-American and Niagara, of New York. In January, 1882, the company withdrew its risks and retired altogether, not from necessity, but because the advantages held by powerful rivals would ultimately sweep it out of existence.

In twenty years, during twenty years, the company took \$2,488,000 in premiums, paid \$1,000,000 in losses, and \$280,000 in dividends.

L. W. Clark was president from 1874 to 1881, when he became assistant secretary of the Connecticut, and was succeeded by A. Chamberlin. E. B. Cowles continued secretary throughout. He then became assistant manager for New England of the Royal Insurance Company, with headquarters at Boston.



Cha. F. J. Whiting

THE ATLAS INSURANCE COMPANY,

Successor of the Charter Oak, was chartered in 1872, and began business in July, 1873, on a capital of \$200,000. In August, 1877, the management ceased taking new business, but carried existing risks till they ran off. In June, 1879, the stockholders voted to reduce the capital to \$100,000 and resume business. An examination in November, 1881, disclosed an impairment of over twenty-five per cent. in the capital, when the commissioner successfully petitioned the court to restrain the company from the further prosecution of business. Joseph H. Sprague was president, and Edward B. Huntington and George S. Merritt, secretaries.

MANAGEMENT OF FOREIGN COMPANIES.

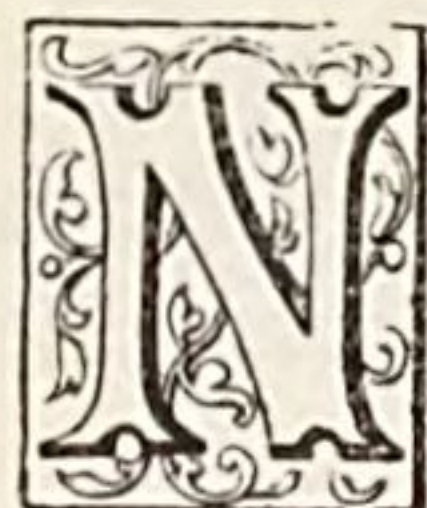
In 1880 the Scottish Union and National Insurance Company, of Edinburgh, and the Lion Fire, of London, having decided to enter the United States, sent committees hither to select a general manager. After examining the field they tendered the place, entirely without solicitation on his part, to Martin Bennett, of Hartford. His position at the head of the Connecticut Fire was eminently agreeable, but the offer came in such form as to be irresistible. The record and presence of Mr. Bennett determined the decision of the committees, and results have shown the wisdom of their choice. Graduating at Brown University as a civil engineer in 1860, he entered the office of the Connecticut Fire August 14th, was elected secretary October 23, 1865, and president January 28, 1873. After the Chicago fire he presented the case of his company with such captivating candor that every creditor assented to terms of settlement that saved its charter.

October 11, 1880, Mr. Bennett resigned the presidency of the Connecticut to enter upon his new duties. Instead of going to New York or elsewhere he established the American headquarters of the two foreign companies in Hartford. The venture has been remarkably successful. A net remittance to this country by the Scottish Union of \$839,695 had grown January 1, 1897, to \$3,681,118.60, nearly all invested in the United States. During the period its receipts in this country were \$12,549,454.87; losses and expenses, \$10,615,318, all calculated on a net basis.

Mr. Bennett has been president of the Hartford Local Board and of the National Board of Underwriters. He is a forceful and witty writer, and has often been called to read addresses at important meetings.

James H. Brewster, assistant manager, was born at Coventry, Conn., December 24, 1845. In the Connecticut Fire Insurance Company and in his present position he had on the 25th of February, 1897, been associated with Mr. Bennett thirty years continuously.

CHAPTER XLVII.

INSURANCE IN CONNECTICUT—Continued.

EARLY forty mutual fire insurance companies, from time to time, have been chartered by the General Assembly of Connecticut. January 1, 1897, seventeen were in existence. Their names, dates of incorporation and gross assets, less premium notes, were as follows :

Name.	When incorporated.	Gross assets, less premium notes, January 1, 1896.
Mutual Assurance of Norwich	1795	\$ 13,256.29
Windham County Mutual	1826	47,342.38
Tolland County Mutual	1828	67,656.40
Hartford County Mutual	1831	575,500.00
Litchfield Mutual	1833	97,704.99
Middlesex Mutual Assurance	1836	720,225.55
New London County Mutual	1840	121,806.46
Danbury Mutual	1850	29,570.17
Farmers' Mutual	1853	229.85
Farmington Valley Mutual	1854	5,710.85
Madison Mutual	1855	8,498.41
Greenwich Mutual	1855	6,915.44
Harwinton Mutual	1856	197.30
Washington Mutual	1862	101.10
State Mutual	1867	30,786.46
Rockville Mutual	1868	8,073.32
Patrons' Mutual	1888	1,266.10

The needs, which brought into being the oldest of the Mutuals, have been briefly stated in the account already given of the Mutual Assurance of Norwich. A few words with regard to three or four of the larger companies will perhaps give a sufficiently clear idea of the manner of growth.

Upon petition of Vine Robinson, and fifty-five others, the Windham County Mutual was incorporated in May, 1826, and organized the following June. It was allowed to insure only houses and other buildings. The insured paid a small percentage of the premium in cash, and the rest in a note liable to assessment in case of losses by fire.

Only three assessments have ever been laid: the first in 1829, yielding \$653; the second in 1830, yielding \$607.41; and the third in 1831, yielding \$498.64. In 1871 the company was authorized to dispense with premium notes. Policies were made a lien on buildings and lands.

The position of president was at first honorary, but the directors made a radical departure in June, 1837, when they voted him an annual salary of \$9. Revolutions, it is said, never go backward. In 1842 the directors voted to allow themselves \$1 each for attendance at meetings. As they resided in all parts of the county, and were compelled to drive from six or eight to twenty-five miles over hilly roads, they claimed that the pay was not excessive. A charge of seventy-five cents for new policies, and of fifty for renewals, which made up the entire compensation of the secretary, was voted in 1839, and proved such a mine of wealth that in 1845 he paid \$40 for the contract for the year. The first statement to be found bears date October 1, 1851, when the company had in cash and in the hands of agents \$190.05, and in interest-bearing notes \$1018.

Presidents have been: Vine Robinson, 1826-43; Asael Hammond, 1843-49; Armin Bolles, 1849-56; Aaron H. Storrs, 1856-78; John Gallup, 1878-9; David Greenslit, 1879.

The positions of secretary and treasurer have been filled by the same persons, except from 1848 till 1856, and again since 1892. Executive functions have been lodged mostly in the office of the secretary. Secretaries have been: Adams White, 1826-48; B. Wheaton, 1848-9; Edwin S. Chase, 1849-56; Aug. F. Fisher, 1856-7; John Palmer, 1857-92; James C. Palmer, 1892.

John Palmer was connected with the company thirty-six years, and during the time its assets grew from \$2,016 in 1856, to \$51,160 in 1892.

THE HARTFORD COUNTY MUTUAL

was incorporated in May, 1831, for the purpose of insuring houses and other buildings in the county of Hartford without the limits of the city of Hartford. At the first meeting held in the State House September 19th, David Grant was elected president, and Elisha Phelps, secretary. After a few weeks Mr. Phelps resigned and was succeeded by Charles Shepard.

The "premium note" was perhaps the most characteristic feature in the early history of the Mutuals. Upon ordinary detached risks the company required a note equal to two (2) per cent. of the face of the policy and ten per cent. of the first year's premium in cash. On buildings more exposed the rates were higher.

The following year the company was authorized to insure property outside the limits of the county, and to charge the premium in a gross sum instead of rating the same by the year, the lien remaining the same.

In 1835 the cash payment on effecting insurance was raised to three and one-third per cent. of the premium charge. The system with occasional variations in the rates continued till 1889, when the premium note was discarded and the whole business put on a purely cash basis.

The Hartford County began modestly, and after disbursing \$12 in losses, and \$179 in contingent expenses, had a surplus of \$12 at the end of the first twelve months. For the next eleven years the business grew slowly, and at each annual meeting the books showed a small balance on the credit side of the ledger. In 1842, however, came a turn in the tide. Losses mounted up to \$3,269.14, and at the close of the fiscal year, in December, the directors were confronted with a deficit of \$362.11. Matters seemingly trivial have often proved to be pivots on which the fate not only of nations, but of civilization itself, has turned. So in a small way of this deficit. It provoked earnest thought and much discussion. Some advocated an assessment. Mr. Shepard took ground in favor of borrowing the money and raising the cash rates to a remunerative basis. Already the theory which prevailed at the outset, and which in many changeful forms has been revived and discarded since, had proved its insufficiency. The sensible views of the secretary were approved, and a note for the arrearages, presumably indorsed by the officers, was discounted at the Hartford Bank. From current receipts the obligation was soon discharged, and the company has never been compelled by reverses to pass through a similar experience since.

Not till 1853 was the company permitted to insure buildings within the city limits of Hartford. On the morning after the great Chicago fire, residents of the city did not know whether the policies on their property issued by stock companies were worthless or not. Of the solvency of the Hartford County Mutual they were certain, for it did no business beyond the boundaries of Connecticut. Many came in

at that time to take advantage of the protection it offered, and have since remained upon its books.

From 1835 to 1844 policies were renewed on the payment of a fee of twenty-five cents to the secretary, with no further cost to the insured. Meanwhile new members paid their initiatory premium.

The company takes only the safer class of risks, as dwellings and farm buildings with their contents. It does not insure churches, school-houses, stores or factories. Its business has always been confined to the state of Connecticut.

Presidents have been David Grant, 1831-38; Daniel St. John, 1838-44; Charles Shepard, 1844-67; D. D. Erving, 1867-73; Julius Catlin, 1873-4; Walter H. Havens, 1874-6; James B. Shultas, 1876-80; William E. Sugden, 1880.

Secretaries, Elisha Phelps, one month in 1831; Charles Shepard, October, 1831-44; R. A. Erving, 1844-53; D. D. Erving, 1853-67; William A. Erving, 1867-.

R. A. Erving resigned to accept the position of secretary of legation under Ex-Governor Thomas H. Seymour, then recently appointed minister to the court of St. Petersburg. Having spent a number of years in Russia, he was lost with the steamer Pacific on the voyage home. The secretary has always been the executive officer.

THE MIDDLESEX MUTUAL ASSURANCE COMPANY.

Not the oldest but the largest of the mutual fire companies of the state in business and assets, is the Middlesex Mutual Assurance Company of Middletown, chartered in May, 1836, and organized June 13th of the same year. Richard Hubbard was elected president, and John L. Smith, secretary and treasurer. During the first year four hundred and sixty-seven policies were written. At the annual meeting in June, 1838, William Woodward was elected secretary, and Samuel Cooper treasurer. It was voted to move the office from the store of John L. Smith to that of E. Hunt & Co. In 1865 it was moved to a room under the Universalist church, and was again transferred to permanent quarters in the new building of the company the next year.

At first a small cash premium was required from the insured to meet current expenses and ordinary losses, and a promissory note to be held in reserve for emergencies. In 1859 the premium note system was abandoned. By a charter amendment policies gave the company a lien on the buildings insured and on the land.

In June, 1886, the assets having increased to \$530,174.77, a still further innovation was made. The directors voted to cancel and release the lien reserved on all policies outstanding at the close of business, June 30, 1886, and to reserve no lien aside from the cash premium, in policies issued on or after July 1, 1886.

Presidents have been Richard Hubbard, 1836-9; Samuel Cooper, 1839-54; William S. Camp, 1856-66; William D. Willard, 1866-67; William R. Galpin, 1867-79; Elijah Ackley, 1879-83; John N. Camp (temporary) October, 1883-June, 1884; 1884, O. Vincent Coffin. Besides holding many positions of trust the present incumbent, Mr. Coffin, was mayor of Middletown for two terms, was elected to the State Senate in 1887 and 1889, and Governor of Connecticut in 1894.

Secretaries have been John L. Smith, 1836-38; William Woodward, 1838-49; Stephen Taylor, 1849-56; William Woodward, 1856-66; John W. Hoyt, 1866-67; H. F. Boardman, 1867-82; C. W. Harris, 1882-.

THE NEW LONDON COUNTY MUTUAL,

Organized July 1, 1840, has won a secure position. Presidents have been Joseph Backus, 1840-44; Joel W. White, 1844 (March till October); John G. Huntington, 1844-61; Elijah A. Bill, 1861-68; E. F. Parker, 1868-95; Charles J. Winters, January, 1895-.

Secretaries, J. DeWitt, 1840-7; John H. DeWitt, 1847-54; John L. Devotion, 1854-75; C. J. Fillmore, 1875-78; William Roath, 1878-85; J. F. Williams, 1885-.

THE STATE MUTUAL OF HARTFORD,

Though nearly the youngest on the list, has gained sufficient strength to guarantee its permanence. September 2, 1867, Ralph Gillett was chosen president, and Isaac Cross, Jr., secretary and treasurer. There was no change in the management till the death of Mr. Gillett April 17, 1894, when Mr. Cross was made president, and Franklin A. Morley, secretary. A loss of \$4,000 on policy No. 61 insuring one of the best dwellings in Windsor occurred June 29, 1869. The assets of the company were insufficient to meet the call, but the officers made up the deficiency out of their private funds and paid the claim within a week. It pursues a conservative course, issuing no policy for over \$2,000.

Ralph Gillett, born in Gilead, Conn., October 24, 1811, moved from Ellington to Hartford in 1849, and was one of the first to start in this city of insurance a general insurance agency. He was first president of both the City and Charter Oak Fire Insurance Companies and of the Union in 1860.

CHAPTER XLVIII.

INSURANCE IN CONNECTICUT—*Continued.*

LIFE INSURANCE.*

IT may be said that the successful development of life insurance in Connecticut has been confined to Hartford. Companies started elsewhere on the plan of accumulating sufficient reserves to meet every claim at maturity, have ended in failure. Within a few years some fraternities have adopted the plan of contributing a fixed sum to the families of deceased members, and several bodies have been chartered with authority to pay losses by assessments on survivors. Such schemes may apparently flourish for a while, but they lack the features that insure permanence. Life insurance proper has come to be a matter of science and equity. Its methods have been evolved so as to conform to laws of average which are almost as exact in operation as the laws of physics.

Dr. Pinckney W. Ellsworth and James L. Howard were the first to call the attention of the people of Hartford, at least, in an effective way, to the subject. Dr. Ellsworth was agent of the International, of London, England. Mr. Howard, in February, 1846, took out policy No. 1079, in the Mutual Benefit of New Jersey, and at the same time accepted the local agency of the company. Joseph Lord came up from New York city to initiate him in the theory and practice of canvassing. Mr. Howard started off with a boom, presenting the subject not only in private interviews, but in public addresses. Guy R. Phelps was so impressed with the merits of the system that he took a policy in the Mutual Benefit. Elisha B. Pratt became an early convert. Other men of prominence quickly followed. All at once the novelty became the talk of the town.

* In this sketch of life insurance in Connecticut, no account is given of the operations of assessment companies or of fraternal or benevolent associations.

It was a new subject, and the vigorous presentation of the affirmative side provoked a good deal of curious opposition. Some good people argued that the scheme was irreligious in substituting reliance upon human instrumentalities for trust in Providence. Elder Swan, a revivalist famous for rough eloquence, and for the lurid colors in which he painted the terrors of the law, in a sermon at an annual state convention, resolved to crush the pernicious novelty at a blow. Rising to a climax in denunciation, he said: "Suppose that Jesus, on His way to the Jordan, had met John among the foothills, and to the question, 'Whither goest thou?' John had answered: 'Behold, all these years have I trusted in the God of Israel, and have been sorely pressed by many troubles. Wist thou not that I go up to Jerusalem to get my life insured?' Would the church, my hearers, have outlived the few and feeble days of infancy had treachery so foul been permitted to occur and to pass unrebuked? If lack of faith was a sin then, it is a sin now. Avoid the snares of a perverse generation, and say to the tempter, 'Get thee behind me, Satan.'"

Prejudice yielded before enlightened discussion. The act condemned by the good elder as a sin is now classed with the duties.

THE CONNECTICUT MUTUAL LIFE INSURANCE COMPANY (HARTFORD).

Discussion of the merits of life insurance in private counting-rooms would have continued indefinitely in many towns without suggesting the thought of forming a company to enter upon the work. Not so in Hartford. For a full half century the city had been engaged in fire and marine underwriting. Abilities of a high order had been attracted to the field. Carrying on operations over a wide area, coming in contact with many minds, and trying to generalize laws from accumulating stores of fact, managers not only acquired a fondness for the business, but unconsciously found it an efficient instrument for sharpening the wits. At this juncture, too, it was beginning to pass out of the empirical stage. Principles now recognized as fundamental were discussed pro and con in the offices of the Hartford, the *Ætina*, and the Protection. The first two saw the light and lived. The third passed on in the old way and died.

Early in 1846 James L. Howard took thirty applications for policies in the Mutual Benefit in two months. Very quickly the familiar arguments in favor of life insurance penetrated the community. It was like the fall of a stream of sparks on tinder. Long habit had developed in the city an instinct for underwriting which seized at once upon the advantages to be gained by entering the field promptly. A charter incorporating The Connecticut Mutual Life Insurance Company was drawn up and passed by the General Assembly at the May session in 1846.

The document carefully guards the rights of all parties. In case of loans on real estate it requires double security on unencumbered property, and in loans on state stocks and bank stocks a margin of twenty-five per cent. As a rule managers do not seek to have their freedom limited by sharp restrictions, for it is only in seasons of panic and disaster that the wisdom of iron-bound rules becomes manifest. The corporation was impowered to insure husbands for the exclusive benefit of wives and children, free from all claims originating on the side of the husband, provided the annual premium did not exceed \$100 (raised to \$150 in 1848), unless paid from the private property of the wife. This was at a time when the law regarded husband and wife as one, and that "one" the husband. It was allowed to take from the insured notes for the premium in part or for the whole at discretion, and in case just claims at any time exceeded the cash on hand to lay assessments on the notes *pro rata*. At the beginning of each year the company was required to make an estimate

of profits and of the true state of affairs for the previous year, to charge each member with a proportionate share of losses and expenses, and to credit him with a proportionate share of profits. Other provisions were made for carrying out the system of distribution in a way that then seemed equitable.

The incorporators met first July 16, 1846, at the Eagle Hotel, and adjourned from time to time till July 29th, when the company was organized by choice of the following directors, viz.: Thomas K. Brace, Robert Buell, David S. Dodge, Guy R. Phelps, Elisha B. Pratt, Edson Fessenden, James A. Ayrault, Eliphalet A. Bulkeley, Lorenzo B. Goodman, Nathaniel H. Morgan, Nathan M. Waterman, and Henry L. Miller.

August 11th Eliphalet A. Bulkeley was chosen president; Guy R. Phelps, secretary; and David S. Dodge, physician. Elisha B. Pratt was subsequently elected vice-president.

The board met frequently, but for several months made little progress. As the scheme was purely mutual they saw that heavy losses in the infancy of the association might crush out its life by the weight of assessments. For bridging the danger, and thus opening a sure road to permanence, they decided, as permitted by the charter, to raise a guaranty fund of \$50,000. It was to be made up of well-secured notes, given in advance for premiums, one-half payable five and the other half ten years from date. In case of assessments the makers were to be reimbursed from premiums earned immediately afterwards. The company paid for the credit six per cent. annually. Except for losses and assessments previously incurred the notes became void at the end of their respective terms, and were to be then surrendered. Death of the maker operated as a cancellation for future liability. A like rule applied to the guarantor. Provision was made for substituting new obligations in place of those withdrawn by cancellation or failure.

The plan was approved December 1st, and, at a meeting on the 7th, the entire amount was apportioned to nineteen subscribers, in sums ranging from \$4,000 to \$1,000 each. On the 11th of the same month the board voted that policies might be issued to approved parties, as applications had already been received to the amount of \$100,000. Meanwhile suitable forms and literature had been prepared and printed and tables of premiums adopted. At the annual meeting, in January, 1847, James Goodwin and William T. Hooker took the places of Messrs. Phelps and Goodman in the directory. The work of appointing agents and procuring risks was pushed with vigor, not over \$5,000 at first being taken on a single life.

The first Finance Committee to which the by-laws intrusted the care and investment of funds, consisted of Messrs. Bulkeley, Goodwin and Hooker.

January 6, 1848, James Goodwin was elected president, and James A. Ayrault was appointed actuary, other officers remaining as before.

Applications for insurance were all submitted to the full board of directors. These came in such volume, however, that in January, 1848, the board authorized the officers to issue policies upon unexceptionable applications presented during the recess of the board, upon obtaining the approval of three members, of whom the medical examiner must be one.

The following March Isaac Toucey, afterwards governor, United States senator and secretary of the navy, was appointed first legal counsellor.

The first serious dissension arose over the rigid economy shown by the executive officers in making allowances to agents. It was a fixed rule to pay no bills incurred by them for furniture, fixtures, stationery, etc., unless appropriations had been specifically asked and been approved by the board. All literature emanated from the

home office. Agents were invited to send in any matter which they desired to see in type, and were told that if approved it would be duly incorporated and supplied to them gratuitously. They were required, however, to foot printing and other bills if incurred without authority.

N. D. Morgan, agent in New York city, grew restive and resentful under the restrictions imposed upon him. Elisha B. Pratt, in charge at Boston, was also dissatisfied. In anticipation of the election to be held in February, 1849, they made a determined effort to capture the company, with the avowed purpose of introducing a more liberal and expansive policy. But the garrison holding the fort was not asleep. December 16th a vote was passed to notify Mr. Morgan that his term of service would expire on the 19th, three days later. A powerful minority in the board sympathized with the malcontents. On the first day of the new year Messrs. Brace, Hooker, Miller and Dodge resigned from the directory, and after a decorous delay their resignations were accepted. Mr. Pratt had retired the previous September, and the following September he gave up the agency at Boston.

The election was hotly contested. Of the twenty-four hundred and one votes cast James Goodwin received twenty-three hundred and ninety-seven. The rest of the successful ticket was elected by majorities of about two hundred. The new board consisted of James Goodwin, William W. Ellsworth, Ebenezer Flower, Edmund G. Howe, George Sumner, Zephaniah Preston, Edwin Tiffany, Samuel Woodruff, Simeon L. Loomis, Mason Gross, William E. Dodge, of New York, and John W. Sullivan, of Boston. Messrs. Dodge and Sullivan declined to serve, when Henry Z. Pratt, of New York, and William T. Hooker were chosen to fill the vacancies. A brief war of circulars was followed by a long calm.

In the partial reorganization that ensued Ebenezer Flower, sea captain, coal merchant and afterwards mayor, was elected vice-president. Dr. George Sumner succeeded Dr. David S. Dodge as physician. The position of actuary was abolished. The business had so grown that the board now authorized the employment of a bookkeeper, clerk and office-boy.

The statement for the year ended January 31, 1850, showed that over six hundred more policies were issued during the twelve months than during the entire previous existence of the company. The number of clerks had increased to four. The annual election passed without a ripple.

The guarantee notes were retired at maturity in 1851 and 1856 respectively, having by their mere presence in the treasury fulfilled their purpose without assessment of any kind.

Till the outbreak of the war growth was more solid than showy. At that time the company had about three and one-third millions of dollars in assets and about twenty-five millions at risk. It had already won the confidence of the public and had in the field many devoted and enthusiastic workers. In one western city after another it secured correspondents of high character and ability to act as loan agents. As the transactions were eminently profitable to both lenders and borrowers the arrangement brought a large clientage, and by aiding the development of the country continually broadened the field of operations. Not less popular than its enterprise in offering loans were its unique provisions for guarding the interests of women and children.

The premium note, too, proved an unexcelled device for canvassing purposes. Under this system fifty per cent. of the first four premiums was payable in a note, bearing six per cent. interest, which was made a policy lien and was deducted from the death claim by the terms of the contract. Limited to the first four years, the

method made it easy to take large amounts of insurance at small cost. These were extinguished by dividends with a rapidity dependent on rates of interest. Counted at their face they reached a maximum of \$11,859,974 in 1870, and had fallen to \$1,065,427.28 at the beginning of 1897. The officers have always regarded the notes as an excellent asset. These were unsatisfactory, however, to claimants who wanted the face of their claims in cash. This was one reason for giving up the system.

In 1863 an acrid controversy arose between William Barnes, superintendent of the insurance department of New York, and Secretary Phelps, with regard to an assumed failure to report as a liability dividends to policy-holders provisionally declared by the directors. The superintendent went so far as to threaten, unless his demands were complied with, to decline to renew the certificate of the company allowing it to issue new policies in that state. The subject matter of dispute is of far less interest than the defiant, almost contemptuous, attitude maintained throughout by Mr. Phelps. He asked no favors, courted the fullest inquiry and met insinuations with scorn.

A few years later a successor of Mr. Barnes, in wanton disregard of decency, let loose upon the life companies of New York a swarm of bummers under pretense of examining their condition. For alleged investigations these foragers presented enormous bills, which were paid without audible protest. It was notorious that most of the men commissioned to go on the raid had little fitness for any work outside of political chicanery. In short, the scheme began and ended in blackmail pure and simple. Why did the victims submit in silence to imposition and robbery? The question has been often asked, but never answered "officially."

We may infer from the letters of Mr. Phelps, and from the fearlessness uniformly shown since then in dealing with frauds of every name and nature, that an expedition fitted out at Albany to assault the treasury of the Connecticut Mutual would have met there a very different reception.

Till 1869 the company returned to each member, without regard to the age of his policy, a uniform percentage of the premium, thus discriminating in favor of newcomers. Meanwhile, keen minds penetrating to the core the mathematical intricacies of the subject, detected the inequalities of existing methods of distribution. In 1869, the contribution plan devised by Shepard Homans, then actuary of the Mutual Life of New York, was adopted. Under it each one theoretically receives in dividends or return premiums, from year to year, precisely the share that his payments entitle him to. In view of the difficulty of combining mutuality with strength in the early stages of the attempt, the system has been accepted by competent critics as a close approach to perfect equity, and has been everywhere adopted in this country.

In early days by the terms of the contract failure to pay premiums universally forfeited the policy. Not a few companies reckoned largely upon this source of revenue. Many persons were thus subjected to great hardships, from which through change of fortune they could not escape. In 1864 the Connecticut Mutual voluntarily changed the form of its contracts so as to give members the full value of past premiums in paid-up insurance, where they found it inconvenient to continue.

When business rebounded after the first shock of war the fruitfulness of wise seed-sowing became clear. An issue of one thousand, two hundred and seventy-five policies in 1859—the highest record up to that time—fell to nine hundred and fifty-nine in 1860, but increased to five thousand and ninety, in 1863; to eight thousand and forty-five in 1864; and to fourteen thousand, one hundred and fifty-one, high water mark, in 1867. Meanwhile, assets had increased to over twenty-two and a half millions. The amount written in 1867 reached \$45,647,191.

It could not escape the speculative mania that followed the outpour of paper-money during the war. Suburban farms were bought at high figures and on charts sold out to building lots. Prices soared. Others caught the frenzy. More land was bought to be sold to newcomers whom heated imaginations saw thronging toward the sea. By and by the inflation wavered in its upward flight. Something must be done. Money was badly needed to sustain the weight. One after another asked loans from the Connecticut Mutual. Was it not the duty, they asked, of a Hartford institution controlling some millions, to uphold Hartford interests? Supported by the directors, Mr. Goodwin promptly and peremptorily declined. He met insistent appeals by showing how the folly must inevitably end.

But the question before the situation was desperate. Quietly and secretly they formed plans for the capture of the company. In July, 1867, they procured the passage by the legislature of an act less than three lines long, repealing section 376 of the revised statutes, and thus changing the mode of electing directors. Simultaneously they secured the country for proxies. The plot was discovered only a few days before the annual election, but happily in time to frustrate it. In view of the relative strength of the two parties it now seems incredible that the attempt so nearly succeeded. Separate communities and the country have suffered untold evils from this legislation pushed through to promote private interests.

Dr. Phelps was secretary till 1866, and president thence till his death in 1869. Born in Simsbury, Conn., he graduated at the Yale Medical School in 1825, and after a few years of practice in different places, opened a popular drug store in Hartford. During his long connection with the Connecticut Mutual, he aimed to make the company strong and rich.

Except during the brief incumbency of Dr. Phelps, Major James Goodwin was president from January, 1848, till his death, March 15, 1878. Born March 2, 1803, he early exhibited great aptitude for the management of large affairs, having while still a minor become owner of the main line of mail stages running east from Hartford. In association with others he extended his interests till most of the lines centering in the city were included. He quickly foresaw the superseding of the stage by the railroad, and changed his investments accordingly. He was largely interested also in fire insurance, banking, and manufactures, and on all these varied lines of effort his counsels were highly valued. Local benevolent and educational institutions, too, profited from his guidance and gifts. He married, in 1832, Lucy, daughter of Joseph Morgan and sister of Junius S. Morgan, long a leading banker of London. For thirty years Major Goodwin largely directed the financial policy of the Connecticut Mutual in the matter of loans and investments. To his sagacity it is greatly indebted for the strong position which it won early and has easily maintained. He knew personally, and accurately measured the leading financiers of both the East and the West, and was thus enabled often on short notice to make large and advantageous purchases.

For the most part the executive officers of the company have served till death closed their labors. Woodbridge S. Olmstead succeeded Mr. Phelps as secretary in 1866, and died in 1871. Colonel Jacob L. Greene, for whom the office of assistant secretary was created in 1870, succeeded Mr. Olmstead in 1871 and was elected president in '78. John M. Taylor was assistant secretary, '72-'78; secretary, '78-'84, and has been vice-president since '84. Later secretaries have been, William G. Abbot, '84-'89, and Edward M. Ponce, '89-; assistant secretaries, Daniel H. Wells, William G. Abbot, and John D. Parker. Since March, 1881, Mr. Wells has also been actuary, and his work in such is held in high regard. After Mr. Flower, Edmund G. Howe



J. A. J. Wilson, Boston

Scott L. Hume

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was vice-president, '51-'57; Zephaniah Preston, '57-'77; Edward B. Watkinson, '78-'84. Mr. Watkinson also, as chairman of the committee on building, supervised the construction of the home office.

Colonel Greene was born at Waterford, Me., August 9, 1837, studied at Michigan University, and began the practice of law. Soon after came the war, with its loud calls for young men. At the age of twenty-four he enlisted in the Seventh Michigan infantry, and except when on a sick bed or in southern prisons, served in the Union army till one year after federal authority was fully restored. In 1863 he was appointed assistant adjutant-general on the staff of General Custer, and in 1865, chief of staff to the same commander. April, 1866, he was mustered out with the full rank of major and the brevet rank of lieutenant-colonel, bestowed for distinguished gallantry. Colonel Greene then took an agency for the Berkshire Life Insurance Company of Pittsfield, Mass., and was soon invited to join the office staff as assistant secretary. For a quarter of a century he has served the Connecticut Mutual. Colonel Greene takes an active interest and occasionally an aggressive part in public affairs, always, in seasons both of calm and contention, on the side of sound morals, clean politics, and good government. His pen has enforced the use of correct methods in life insurance, and has mercilessly laid bare the injustice of alluring but deceptive devices for entrapping the unwary. In March, 1896, he read a paper before the Hartford Board of Trade on "Our Currency Problems," of which over one hundred and ninety thousand copies were circulated, largely through the South and West. During the troubles that have sprung from tampering with the currency, he has been a stalwart leader in exposing the heresies wrapt up in the pretensions of fiat money.

Mr. Taylor was born of New England parentage at Cortland, N. Y., February 18, 1845, graduated with class and scholarship honors in 1867, at Williams College, and was admitted to the bar in 1870, when he opened an office in Pittsfield, Mass. Incidentally he was elected town clerk, clerk of the district court, and to other positions. He gave up a career at the bar to link his fortunes with the Connecticut Mutual, but the connection has been happy for both parties. Thorough legal training at the outset reinforced by familiarity with current legislation and court decisions affecting insurance, exact knowledge of principles and mastery of details, long ago made him a trusted and authoritative guide through the changeful complexities that continually arise. To the general management he has contributed his full store of thought and responsibility. Mr. Taylor has decided literary and critical ability as shown by his recent historical work, "Maximilian and Carlotta, a Story of Imperialism."

The Connecticut Mutual is peculiarly strong, not only in solid assets, but in a conservatism of policy, the wisdom of which will become more and more apparent with the lapse of time. Its premiums and reserves upon risks taken since April, 1882, are computed on the assumption that before the liabilities mature, safe investments cannot with certainty be depended upon to yield a yearly net income of over three per cent. instead of four per cent., the basis heretofore required in prudent legislation and estimates. When taken, the step, quite at variance with the prevalent tendency, provoked, in certain quarters, acrid criticism, but its justification came more quickly, perhaps, than its advocates foresaw. The discussion drew from able economists elaborate papers to prove that for a generation, at least, the annual rate of interest in the United States, except for short and transient intervals, could not fall below six per cent. The arguments were based upon the extent of our undeveloped and partially developed territory, the tireless energy of our people, and the enormous sum certain to be required both for the enlargement of old and the initiation of new enterprises. In reality, capital increases much more rapidly than the

demand for it in safe investments. In a panic the rate may mount upward according to the necessities of the borrower. During the last decade, on the contrary, call loans on the best security have ranged for months at a time from one per cent. a year to a fraction above, while much of the time United States and some state bonds have yielded less than the assumption of the company requires. Nothing but a long and destructive war can arrest except temporarily the downward movement. In view of the further fact that life insurance contracts, in many instances, will run fifty or sixty years, and that every one kept in force must be provided for at the outset and ultimately be paid in full on penalty of bankruptcy, it is easy to see that all similar institutions, to meet remote obligations, must follow in practice, if not avowedly, the example first set by the Connecticut Mutual.

On the highly improbable assumption, that the destruction of capital in wasteful wars should restore, for a long period, former rates of interest, and thus postpone the necessity for revising the tables of cost, patrons of the company would reap the entire benefit in the way of larger dividends. In case the accumulation of wealth, with the attendant decrease of income, goes on without interruption, they are fully protected, and in case the natural order of economical development is suspended or temporarily reversed, they lose nothing by the changes introduced in preparation for the seemingly inevitable.

In 1871-2 several ambitious companies that had pushed their business at such an expense as to affect their dividends very unfavorably when compared with those of more conservative competitors, revived the "tontine" scheme under which insurers agreed to forego all dividends for ten to twenty years and pay full premiums.

Those who died during the term lost such surplus as had accumulated up to the time, and those who ceased to pay, no matter when, lost everything. It was represented that the forfeitures arising from the two sources would make a very large sum in addition to the face of the policy, to be divided among the select few who persevered till the end of the period.

The Connecticut Mutual, with unanswerable logic, pointed out the injustice of the scheme, taking the ground that as the surplus accrued from year to year it ought to be used to aid in keeping the policy in force, and in case of lapse, that the reserves were entitled to an equivalent value of paid-up insurance. If the plan was carried out faithfully it simply meant the robbery of the many for the benefit of the few, and hence pushed a demoralizing speculation into sacred ground that should be kept free from such intrusion.

Even as a contrivance for enriching the fortunate at the expense of the unfortunate the devise has proved a failure, for as the policies are now falling due the holders are receiving less than forty per cent. of the profits which were promised by way of temptation. Where the balance has gone, raises another question yet to be answered "officially." Costly business blocks built by the companies in different quarters of the globe, that may excite the wonder of beholders, but for the most part yield scant returns on the outlay; large salaries to many employees; and, in short, a heavy ratio of expenses—indicate, in part, where the other sixty per cent. may be looked for.

Prior to January 1, 1897, the Connecticut Mutual had received:

For Premiums	\$192,111,805.65
" Interest	76,438,281.19
" Rents	7,059,292.87
" Profit and loss	1,035,219.59
Total	<u>\$276,644,599.30</u>

DISBURSED.

For Death claims and endowments	\$102,683,616.37
“ Dividends	55,966,763.64
“ Surrendered policies	23,803,729.92
Total paid policy-holders	\$182,454,109.93
Expenses	24,316,102.41
Taxes	8,892,715.35
Total	\$215,662,927.69
Ledger assets, January 1, 1897	60,981,671.61
Net surplus	\$7,153,297.04

The surplus would be over a million of dollars more if wholly computed on the legal standard of 4 per cent. On tables in use since April, 1882, the company has assumed 3 per cent. as the rate of interest on accumulations accruing after that date. In the management of the Connecticut Mutual, one is impressed by the thoroughness and equity with which principles are studied and applied.

Edward M. Bunce, secretary, was born in Hartford in 1841, educated at the Hartford Public High School, and on graduation was appointed clerk in the Phoenix Bank, where, having served under the state and national systems, as teller, assistant cashier and cashier, was elected a director in the Connecticut Mutual Life in 1878, and its secretary in 1889.

Daniel H. Wells was born at Riverhead, L. I., in 1845; graduated at the Yale Sheffield Scientific School in the class of 1867 with the degree of C.E., later receiving the degree of Ph.B., and remaining there as instructor in mathematics and engineering for seven years. In 1874 he became a clerk in the actuarial department of the Connecticut Mutual; was placed in charge in 1876 as second assistant secretary; was elected assistant secretary in 1878, and actuary of the company in 1881.

John D. Parker was born in Pittsfield, Mass., in 1850; educated in the Pittsfield High School; joined the clerical force of the Berkshire Life Insurance Company in 1866, and after five years' service there, was appointed clerk in the Connecticut Mutual Life Insurance Company in 1871; chosen second assistant secretary in 1889, and assistant secretary in March, 1890.

CHAPTER XLIX.

INSURANCE IN CONNECTICUT—*Continued.*

THE AMERICAN MUTUAL LIFE INSURANCE COMPANY, AND THE AMERICAN NATIONAL LIFE AND TRUST COMPANY (NEW HAVEN).



HIS company was incorporated in 1847. Six commissioners were authorized to open books and receive applications for insurance to be effected, not to exceed \$5,000 upon the life of any one person, and when the amount reached \$100,000, to call a meeting at New Haven for the purpose of organizing and electing a board of trustees, every member to have one vote on each \$500 applied for.

Benjamin Silliman, an honored professor in Yale College, was elected president, and Benjamin Noyes, secretary. Tables fixing the rates to be charged for insurance

on lives generally assumed, in the earlier days of the business, that an income of at least $4\frac{1}{2}$ per cent. per annum could be realized on the accumulations made up of premiums and interest. If through good investments higher rates were obtained, the excess was so much clear profit, either to be added to the reserves, or to be returned in dividends to the insured. As loanable funds increased, it was found that the estimate was too high. States like Massachusetts, New York and Connecticut long ago reduced the limit by law to 4 per cent., while far-seeing managers have for some time been recasting their tables on a still more conservative basis.

The American Mutual, however, started on the dangerous assumption that it could realize at least six per cent. on all funds in the treasury. On that theory it made contracts liable to run in some cases for half a century. Whenever, from any cause, the average rate of interest on the combined assets fell below six per cent., a loss arose that could only be charged against principal. In long periods the margin of two per cent. placed at compound interest produces quite astonishing results. On annual payments of \$100, the difference amounts in twenty-five years to \$1,484, and in fifty years to \$14,898. The company, too, made up a table of mortality less conservative than those now in use. Low rates and the world-wide fame of the president gave the American Mutual a good start. In 1855 it claimed to have \$4,960,450 insured by existing policies, although the following year the amount had fallen to \$3,500,000. Its annual statements puzzled the newly-created insurance bureaus of Massachusetts and New York. The commissioners of Massachusetts, in the report of January, 1858, treat the valuation of \$30,000 put on existing policies as "evidently guesswork and not deemed reliable." The next year its statement first came under the searching scrutiny of Elizur Wright, who brought to the office great technical knowledge, integrity and courage. From his eye vagueness could not hide absurdity in estimates. He failed to see how five millions at risk could be transferred to a reliable company for a "sum not exceeding \$37,500," as claimed in the statement. To his mind the figures were given, "not as the result of any calculation or investigation, whatever, but of wholesale conjecture." Considering the age of the company and the amount at risk, he was inclined to believe that no other company would be justified in taking its risks for \$162,212.98—the whole amount of its net assets. At the same time he suggests that there may be some peculiarity in its business to relieve it of suspicion. This much is conceded "out of regard to the venerable gentleman who has stood at its head, and whose name has been its chief tower of strength—a name dear to the whole world for his noble zeal and eloquence in the cause of science and humanity."

In 1862 the company was excluded from doing business in the state of New York, where it then had ten agents. For a long period Commissioner Wright dealt with it very tenderly out of regard for its distinguished president. He was at a loss to see how reports, hazy, indefinite and strained could be fathered by a gentleman trained to exact methods of science, and known to be scrupulously correct in every relation of life. He knew that no taint of mercenary motive could stain the character of one who had devoted splendid talents and incessant toil to the cause of truth and popular education. But at length the suspicion ripened into conviction "that men of science may misplace their confidence in the science of others," and he goes on to show that the calculations avowedly made by Benjamin Noyes for the sworn return deposited with the department, October 30, 1852, involves gross and palpable impossibilities.

Professor Silliman died in 1864. For a short term Willis Bristol held the presidency, and was succeeded by Mr. Noyes, who had held uncontrolled sway from the

start. In 1865 an insurance department, with limited functions, was established in Connecticut. Benjamin Noyes was appointed first commissioner. He held the place till 1871, when the department was reorganized with much broader duties and powers. Thus the American Mutual enjoyed double services from the same person. The wisdom, however, of hiring an official to watch himself is yet to be proved. Although shut out from Massachusetts and New York, within the jurisdiction of Connecticut he could manipulate figures under authority of the commonwealth, applying methods and tests which were wholly his own. In his report to the legislature in 1867—the first embracing home institutions—he presented a table to prove inferentially that the American Mutual was by far the strongest of the eight life companies then doing business under charters from the state. But it is useless to waste words in refuting manifest absurdities.

In 1871 an act was worked through the General Assembly authorizing the company to lease land from Trinity Church, New Haven, and to erect thereon such building or buildings as should be deemed expedient. Under the permission thus granted much the larger part of its available assets was soon solidified in brick and mortar. It was carried on the books at \$350,000, while the lease was claimed to add \$50,000 more to the value of the property.

Mr. Noyes appreciated the commercial value of nominal connections with men of high character and wide reputation. The more engrossing their labors the better, for other activities would then leave little leisure for prying into secrets of management. For his purposes Professor Silliman made an ideal figure-head. Too noble and truthful to suspect trickery and falsehood in an associate, and too busy with pursuits that delighted his heart to descend to the details of money-making, he was content to be an apparent leader in life insurance from a conviction that the work was essentially beneficent. From time to time excellent men were also placed on the board, but, so far as the company was concerned, they were expected to look wise and know nothing.

Rarely, by mistake, persons were selected who declined to be hypnotized. Prof. A. C. Twining, of Yale College, an influential trustee, dissatisfied with the loose methods and indefinite reports of the secretary, urged his associates to apply the curb. By a flank attack he was driven from the board. He also tried to procure a legislative inquiry, but was easily baffled by his wily adversary.

When Joseph G. Lamb resigned the agency at Norwich, Mr. Noyes engaged John L. Dennison to collect premiums on renewals in the town and its vicinity. In forwarding the receipts he added that policy-holders had from time to time received dividends in scrip representing surplus earnings, and asked him to collect all in that section and return the same to the home office with his next monthly statement. Mr. Dennison, from whose training the art of reaching ends by devious paths had been omitted, paid the holders the face value out of his collections and reported accordingly. Mr. Noyes was much displeased. He wrote, "I never intended you to pay the scrip-holders. The object was upon their return to me to consolidate the various pieces, and issue a form of obligation which would be of the same relative value to the holders at maturity." He also requested Mr. Dennison to forward the amount paid in cash in order properly to settle his account.

Mr. Dennison replied that the office had sent no blank to be filled, and given as a voucher to be held during the exchange, or even mentioned the proposed substitution. Hence he had but one way of obtaining the script, and that by paying for it. The explanation brought no answer. Mr. Noyes acted on the theory that to sophisticate the form of an obligation was the easiest way to get rid of it.

In 1870 several leading citizens of Norwich, policy-holders in the company, in a communication printed over their names in the *Advertiser*, made an outspoken attack on the management. Mr. Noyes hurried over to quiet the disturbance. Some of the interviews took a decidedly personal turn, and he was forced to listen to plain talk. At length they finally agreed, as perhaps the best way out of a bad fix, to sell their policies at fifty per cent. of the amount paid in to Dr. J. B. Robertson, vice-president of the company.

As the American Mutual Life had long rested under a cloud, various plans were considered by the managers for getting rid of the discredit without sacrificing the assets and business. In pursuance of the scheme they came before the legislature of Connecticut in 1866, and secured the passage of an act incorporating The American National Life Insurance Company. The capital stock was to be not less than \$100,000, with the privilege of increase at the pleasure of the directors to \$500,000. The subscribers were required to pay the amounts subscribed for, "in such installments as the directors shall order and direct." As subsequently construed, this provision was assumed to authorize the company to begin and continue business with no paid capital whatever. Similar latitude of phraseology runs through the entire document. Section 7 begins, "The capital stock and the accumulations of said company may be invested in mortgages upon real estate worth double the amount loaned," etc. In other words, the managers were permitted, if it suited their purposes, to invest in sundry classes of good securities, but the permission was not coupled with any obligation or penalty. The company was authorized to accept and execute any and all trusts that might be committed to it by any court, or person, or persons, whatsoever, and to "assume or to reinsure any risks involving the casualties of life, either separately or otherwise." The last clause, half hidden under the shadow of innocent privileges, embodied the essence of all that was sought for.

Section 6 allowed dividends to be paid "in cash or scrip, or in stock, or in new policies of insurance, or (to) be added to old ones. It was the original plan to draw from the treasury of the American Mutual Life the funds needed to pay for the capital stock of its offspring. At the next session of the General Assembly the charter of the old company was so amended as to authorize it to loan on vague and illusive conditions to the individual members of its board the amount required to pay for such shares in the new company as they might subscribe for. That Benjamin Noyes and his associates could obtain from successive legislatures the authority to handle without restriction trust funds of the most sacred character, is, perhaps, not so much an evidence of confidence in their integrity as of their adroitness in effecting combinations for political and other purposes.

A long period of gestation followed. In 1871 the corporate name was changed to "The American National Life and Trust Company." The following September stock subscriptions to the amount of \$125,000 were entered on a sheet provided for the purpose, and an organization was consummated by electing as its officers the officers of the American Mutual Life. Benjamin Noyes, president, and Richard F. Lyon, secretary.

The larger part of the subscriptions were made in the name of sundry persons by B. Noyes, "attorney." A little in the same line was done by R. F. Lyon, "attorney." Willis Bristol, treasurer, in trust for the company, took one hundred and twenty shares, which were afterwards vacated by vote of the board. Then came another long and involuntary delay. The annual statement of the American Mutual Life for December, 1871, as made up in the home office, showed a deficiency of \$48,678.84. Dr. George S. Miller, the first regular insurance commissioner of Con-

necticut, as directed by the Act of 1871, creating the office, notified the company to cease the issue of new policies and the payment of dividends till the impairment should be made good. Accordingly a "guaranty capital," so called, of \$75,000 was subscribed to fill the gap in the early part of 1873. About the same time, as permitted by a special act passed in 1871, the state treasurer surrendered to the American National Life and Trust Company, the securities deposited with him by the American Mutual Life, in exchange for an equal amount substituted by the former.

As a part of the same transaction the new company assumed all the liabilities of the old one and took its entire assets, including the guaranty capital. In spite of many difficulties the transmigration was complete. A soul had so passed from one body to another that the closest observer from external appearances would never have suspected the fact. Nothing visible was changed except the title. Not only assets and liabilities, but the premises occupied, the management and atmosphere remained the same. After an examination of its condition in April, 1873, Commissioner Miller gave the company a license to issue policies and transact business.

As it was brought into being with the primary purpose of absorbing dead and dying institutions, it lost little time, after swallowing its parent, in hunting for the next meal. The following December it reinsured the risks of the National Life of New York, which had failed in October. The bargain was bad in every way, the buyer getting little and assuming much. Among the securities assigned were bonds to the amount of \$100,000, deposited with the superintendent of insurance at Albany. It was to get hold of these that the trade was made. Here Mr. Noyes met unexpected difficulties. His manipulations as lobbyist in his own state had given him great confidence in his prowess. But he was now manœuvering on unfamiliar ground. The superintendent was deaf equally to demands and entreaties, successfully claiming that the bonds could not be used for any other purpose than the protection of policy-holders of the bankrupt company in that state. Aside from the deposit of \$105,500 (including excess of price over par) retained by the superintendent, the concern had the December before only \$18,208.97, made up of cash and accrued interest, available for the payment of losses. The balance out of a total of \$760,034.87 of assumed assets consisted of premium notes, loans on policies in force and unpaid premiums. At the same time the liabilities reached \$760,034.87. Had the New York superintendent given up the deposit, the contract of reinsurance would still seem an act of madness.

John W. Stedman, second insurance commissioner of Connecticut, served two terms, having been appointed by Gov. Charles R. Ingersoll and reappointed by Gov. Richard D. Hubbard. He entered upon the duties of the office in July, 1874. Complaints from the beneficiaries of deceased policy-holders in the American National Life and Trust, and from others, came with alarming frequency. Proof accumulated in his hands to indicate that the company was pursuing vigorously the system of freezing out old policy-holders and of compromising death claims on the hardest terms possible. Some, in ignorance, submitted, taking whatever they could get. Others directly or through friends, sent to the department for advice. Mr. Stedman felt that he would be criminally negligent if he allowed such practices to continue without inquiry or rebuke. Accordingly, beginning on the 20th of October, with the aid of several experts, he made an exhaustive examination of the condition of the company and a revaluation of the liabilities on all outstanding policies. The resulting statement showed its condition on the first day of October, 1874.

Putting upon the famous building erected on Chapel street a much higher estimate than was realized in the final settlement, he made the total assets \$923,220.71,

the liabilities \$1,335,068.28, and the deficiency \$411,847.57. Among the assets he included the bonds, now valued at \$108,000, which were deposited with the superintendent at Albany and which never did or could come into the hands of the New Haven company. He disallowed the following items, and over them a fierce contest arose :

Capital stock unpaid	\$84,700
Guarantee capital	75,000
Agencies balances	15,706
Virginia Coal Company stock	26,600
	\$202,006

Section 28 of the act of 1871 provides that if on examination by the commissioner, the assets of any company chartered by this state to grant insurances or make contracts contingent upon lives, are less than its liabilities, the commissioner shall forthwith notify such company to cease the issue of new policies and the payment of dividends until the deficiency shall be supplied, or at his discretion he may apply to the local court of probate for an appointment of a trustee to take possession of the property for the benefit of the creditors.

Section 29 further provides that if the assets are less than three-fourths of the liabilities the commissioner shall without delay bring petition as above, and the court shall thereupon appoint a trustee. It also prescribes the further steps to be taken to accomplish the dissolution of the company.

As the deficiency exceeded twenty-five per cent., no discretion was allowed the commissioner. He therefore applied to the court of probate for the district of New Haven for the appointment of a trustee to take possession of the property and wind up the affairs of the company. At the first hearing the application was resisted on the ground that the law was unconstitutional. The plea was overruled and a trial ordered on the merits of the case. After some delay the hearing began January 18, 1875, before Judge Bradley of the Probate Court, assisted by Judge Phelps of the Superior Court, and closed March 19th. Various adjournments reduced the time actually consumed to twenty days. The court decided, April 12th, that the allegation in the petition that the assets were less than three-fourths of the liabilities was untrue, that the allegation that the assets were less than the liabilities was true, and that the deficiency was not such that the prayer should be granted. Accordingly the petition was dismissed, the court giving no hint of its opinion regarding the value of the property owned by the company, or of the amount of deficiency. Up to this point Henry B. Harrison, afterwards governor, prosecuted the case in behalf of the state. He was so astounded and shocked, however, at the outcome that he withdrew peremptorily from any further connection with it. He was succeeded by Simeon E. Baldwin, now on the bench of the Supreme Court of Connecticut, who with great ability and unfaltering persistence conducted the case to the end. Let us examine the situation in the light of the evidence.

The guaranty capital of \$75,000 was an inheritance, as already narrated, from the American Mutual Life, and was made up in order that the process of absorption might proceed in apparent accordance with law. In a contract between the trustees of the company and the subscribers, dated March 15, 1873, it was agreed that the company should pay six per cent. per annum interest on the several subscriptions, that the fund should not be used or resorted to unless all the resources of the company were exhausted, that all income derived from the securities transferred from private hands to make up the amount, should, when collected by the treasurer, be

paid to the owners, and that the securities themselves should be returned at the end of three years from the 15th day of December, 1872.

Less than \$12,000 in marketable bonds were lodged with the company under the contract. The balance was made up mostly of mythical mortgages, Fair Haven Water Company stock, and town of Brighton, Ill., bonds. The use of the stuff drew from the treasury \$4,500 annually, to which, in return, even the fractional \$12,000 contributed not a cent of revenue. It is obvious that a fund thus constituted, whether good or bad, if allowed as an asset, should be charged also as a liability.

The amount of the regular capital stock is variously stated. In the report for 1873 it is put at \$100,000, with the legend "actually paid up in cash." It matters little whether it is called less or more, for not a dollar had been paid on a single share. June 2, 1873, by vote of the directors a dividend of twenty-three per cent. was declared to be endorsed on the certificates, an assessment of like amount having been ordered at the same meeting. It appears from the testimony that several gentlemen credited on the books with the ownership of stock were entirely unaware of the bounties which had been showered upon them. On the original paper five hundred and forty shares were subscribed for sundry parties "by B. Noyes." From these blocks he seems to have made transfers freely without consulting either ostensible sellers or buyers.

C. S. Maltby testified that he never authorized B. Noyes to subscribe for fifty shares for him or to transfer or receive it. J. A. Bishop, of the Yale National Bank, testified that he did not authorize B. Noyes to make a subscription of fifty shares for him, that he had received no certificate for it, and did not authorize B. Noyes to transfer it to Samuel S. Noyes. Joseph A. Smith testified that he never authorized B. Noyes to transfer five shares to him. The mayor of the city, H. G. Lewis, swore that he owned none of the stock and had never authorized any transfer to him.

The dividend of twenty-three per cent., amounting to \$25,300, was made on a nominal capital of \$110,000, leaving \$84,700 unpaid. It was declared out of the surplus created by the deposit of the guaranty capital already described. As nearly as existing conditions permit, Benjamin Noyes had succeeded in creating something out of nothing. These phantoms, too, he treated as realities with such apparent sincerity that men of considerable intelligence were deluded by the show. The other two items thrown out by the commissioner, agency balances and Virginia Coal Company stock, were about equally worthless.

Returning to assets allowed we find the commissioner too liberal by over \$200,000. He included at a valuation of \$108,000, the bonds conveyed by the National Life of New York, but never delivered because the superintendent at Albany kept them securely locked in his vault for the protection of the policy-holders of that state.

He estimated the building of the company at \$269,822.50. By special permission of the general assembly this structure was erected on ground leased from Trinity Parish, New Haven, for sixty years from October 1, 1871, at an annual rental of \$8,000 for the first ten years, \$9,000 for the next ten, and for the rest of the term at six per cent. on the appraised value of the ground, the yearly rent to be never less than \$9,000. At the hearing the witnesses produced by the commissioner estimated the value of the leasehold at from \$100,000 to \$125,000. The experts of Mr. Noyes thought much more highly of the investment ranging from \$250,000 upward. Till the time of the hearing it had not yielded sufficient revenue to meet the ground-rent and current expenses.

After the finding of the court many officials would have abandoned further attempts to break up a combination so securely intrenched, and backed by such

varied and powerful influences. Whatever disaster might come in the future, a commissioner unwilling to encounter trouble could hold up the record to show that he had fully complied with the law, and that further responsibility rested elsewhere. Not thus, however, with Mr. Stedman. He felt that his duty to husbands and fathers who for many years had paid premiums through trust in false promises, to widows and orphans threatened with robbery in the hour of bereavement, and to the state which had made him guardian of these special interests, demanded that he should press forward without faltering. Accordingly, on the 5th of May, 1875, he submitted a special report to the general assembly. After marshaling the facts he demonstrated by applying to the case the well-known principles of the science, that the company was hopelessly insolvent, that recovery was impossible, and that the longer it continued in business the more disastrous would be its unavoidable failure. He also quoted from his voluminous files to show how Noyes was working to frighten policy-holders into the surrender of claims at fractions of their face.

On the 24th of the month came a reply addressed to the general assembly and signed by thirteen directors. It throws little fresh light on the controversy. In answer to the charge that not a dollar had ever been paid on the capital stock it defends the course of the company on the grounds, 1st, that the charter authorizes it to go into operation upon subscribed capital; and, 2nd, "that the payment of the stock had not been called for by the directors, either in whole or in part, simply for the reason that no necessity had arisen for calling for its payment."

Evidently Mr. Noyes foresaw with far more penetrating vision than the legislature the use that could be made of the instrument.

July 14th the Senate passed a resolution unanimously recommended by the Committee on Insurance, to annul, on the first day of September, 1875, the charters of the American Mutual Life Insurance Company, and of the American National Life and Trust Company, unless the latter, on or before that day should supply the deficiency existing in its assets, and receive from the commissioner a certificate to that effect.

On the 20th of July the matter came up in the House, when two provisos were added, the first offered by Lynde Harrison, of Guilford, in the interest of the managers, and the second by Elisha Johnson, of Hartford, who favored the naked resolution of the Senate. By the first it was provided that in case of disagreement between the commissioner and the company in regard to the sufficiency of the assets, upon the application of either, the chief justice of the state should designate one of the judges of the Superior Court to sit with him to try the issue, that their determination respecting the amount, value and sufficiency of the assets, should be conclusive, and that they should thereupon issue their certificate of the amount of the deficiency, if any, to be paid in, and if the company within thirty days made up the deficiency so found, the main resolution should become inoperative and void. The decision was required to be made and the certificate delivered before November 1, 1875.

By the second it was provided that in case of disagreement between the commissioner and the company as to the sufficiency of its assets, and the deficiency was not supplied on or before September 1, 1875, the commissioner should on that day take possession of all the assets, books and papers of the company, and hold them subject to the order of the chief justice, and to be disposed of as provided by law.

On the 21st the Senate voted to concur, and the bill, as amended, became law. Before the final vote in the house several sudden and radical conversions took place. The reasons for the changes were freely suggested in the debate. In his next annual report the commissioner, with a courage as breezy and refreshing as it is unusual, in drawing back a corner of the curtain, disclosed not hints and suspicions, but names and prices.

"And it should also be stated that two of the members of the House, Buswell Carter, of Plainville (holding a policy for \$1,000 in the company), and George T. Steel, of Bristol (holding one for \$2,000), speaking earnestly and with great apparent sincerity, as policy-holders, plead for leniency to the company, and induced the members to consent to the first House proviso. Up to within two hours of this action of theirs they had been vehement against the company, and against any change in the action of the Insurance Committee. Two days afterwards they surrendered their policies to the company and received their money value."

Stubs in the check-book of Noyes show that out of the funds of the company during the year 1875 and the early part of 1876, he paid over twenty-seven thousand dollars to lawyers, lobbyists and scribblers. Much of this was used around the capitol. Some of the money passed through hands notoriously corrupt. Some was accepted by men of high repute, who, for a price, consented to act as secret agents in aiding the continuance of one of the most detestable forms of fraud. Perhaps in open court it is proper to defend and to defend vigorously even the worst offenders. But when one, no matter how thickly veneered with respectability, takes a fee for prowling with hidden and unavowed designs around the halls of legislation in the interests of crime, it is fairly questionable whether the hireling is not more guilty than his employer.

As the company had not made good the deficiency, the commissioner, in compliance with law, prepared to take possession on the 1st of September. He was restrained by an injunction, issued August 31, by Judge Beardsley, of the Superior Court. This was dissolved on the 8th of September, but while it was in force the United States District Judge in New York city, upon the petition of local policy-holders, issued a restraining order, which was also dissolved after a hearing.

In pursuance of the special law passed to meet the case, a hearing before Chief Justice Park, assisted by Judge L. F. S. Foster, began the 5th day of October, and on the 30th they certified that the deficiency in its assets amounted to \$50,000. The total assets were estimated by the company at \$1,207,598.63, by the insurance department at \$577,578.12 and by the judges at \$1,013,279.65; and the liabilities respectively at \$1,073,294.16, \$1,273,932.98 and \$1,073,294.16. The judges refused to give an official detailed statement of their valuations, but Judge Park furnished verbal information to the commissioner from which he prepared a table. They considered the building worth \$300,000 and the lease \$50,000. Brighton bonds (par \$26,200), Virginia Coal stock and city lots were lumped together at \$50,009.54. The bonds still held by the New York superintendent were placed at \$121,750.

November 22d the directors voted to increase the capital stock \$50,000 and to require full payment. On the 27th the officers certified that the full amount had been subscribed and paid, and on the 29th the commissioner found the sum standing to the credit of the treasurer at the Yale National Bank.

The commissioner was compelled by the statute to assume that the findings of the judges were correct. Accordingly, though still profoundly lacking in faith, he issued a qualified circular, to the effect that on the above assumption the company was solvent.

By what legerdemain the credit of \$50,000 found its way upon the books of the bank, whence it came, and whither it went, were questions quickly lost sight of in the swift whirl of events. Mr. Noyes was plotting a flank movement.

Connecticut pleased him no longer. That much-enduring person was about to turn his back upon the state. He still carried the lobby in his pocket; he could still control in large measure legislation likely to affect his interests; he could still hoodwink judges; he could still command a following of uncritical, but highly respected, gentlemen. In the presence of so many blessings one form loomed up

before him, ubiquitous, irrepressible, a Nemesis, threatening vengeance for the past, and warning him away from the fair and familiar fields that continued to tempt his enterprise. He saw that even the points won in the fight with the commissioners, were of negative value, and could yield no practical benefits. To find an atmosphere suited to the flights of his genius, he must get beyond the jurisdiction of that mild-mannered, but troublesome, officer. Even before the hearing, held by Judges Park and Foster, began, Noyes was not only actively prospecting elsewhere, but had already decided in outline upon a plan of future operations.

In 1873 the National Capital Life Insurance Company of Washington, D. C., having lost two-thirds of its capital, voted to reinsure, wind up, and divide the salvage among the shareholders. In two years the work was practically accomplished, all the odds and ends supposed to have any value having been converted into cash and distributed. In August, 1875, Mr. Noyes appeared on the scene, and offered to buy the charter. A committee from the board of directors agreed to fix the price at \$4,000. If paid, the sum would be a clear gain, as they considered the franchise worthless. The offer was promptly accepted. Mr. Noyes then left, but promised to return soon to complete the transaction. The following December he reappeared in Washington, attended by two confidential lieutenants, Henry D. Walker and A. Goodrich Fay. A check for \$4,000 was now given to the committee, and the charter was turned over to the buyers.

The scene shifts to New York city, where the inner circle held several dark seances to materialize out of the realm of shades the capital needed to clothe, with an appearance of life, the corpse thus lifted from the grave. It was natural that the magicians should seek the aid of Augustus T. Post, for in 1871 he had sold to the American Mutual Life the Brighton bonds. Mr. Post agreed to loan them for fifteen days a mixed lot of western town and county bonds, having a face-value of \$50,400, and they agreed to pay \$1,500 for the accommodation. By the terms of the contract, the securities were deposited in the Continental National Bank, as the agent of the lender, and they were never to pass out of his complete control. During the period Walker was to have the privilege of inspecting and showing them to others.

Another lot of bonds and stock amounting on their face to \$132,000 were borrowed and deposited on similar conditions in the Central Safe Deposit Company. Simultaneously, in Washington, books were opened for subscriptions to renew the capital of \$150,000 of the National Capital Life Insurance Company. A. G. Fay, for himself and others, took the whole amount. The affair was organized by the election of William H. Clagett, of that city, temporary president; A. Goodrich Fay, secretary; and Henry D. Walker, treasurer. Mr. Clagett was not admitted to the secrets of the ring. The stock subscriptions were paid to him as president in checks or certificates which he supposed to be good and which under that impression he turned over to the treasurer.

On the 17th the directors resolved,

"That Henry D. Walker, treasurer of this company, be, and he is hereby, authorized to certify as treasurer, that one hundred and fifty thousand dollars of capital stock of this company is paid in under the provisions of the 7th section of its charter.

"Attest

"A. G. FAY, *Secretary*."

In pursuance of that vote the following certificate was issued:

"This is to certify that the capital stock of the National Capital Life Insurance Company of Washington, D. C., was duly paid in on the 17th day of December, 1875, to the amount of one hundred and fifty thousand dollars, and that at the present time the same is invested in securities

(stock and bonds), the par value of which amounts to one hundred and eighty-four thousand, six hundred and five dollars, and that the same are now in my possession as treasurer.

"December 20, 1875.

"HENRY D. WALKER,

"Treasurer of National Capital Life Insurance Company."

The managers of the Washington company now invited a committee from the board of directors of the New Haven Company to inspect the securities fraudulently deposited in New York city. The invitation was accepted and Joseph A. Smith selected. December 23d Smith was taken by Walker to the Continental Bank and Central Safe Deposit Company. The borrowed securities were exhibited to him, and he made inventories of both lots.

The same day he certified to the home office :

"I have . . . personally examined the schedule of assets of the National Capital Life Insurance Company of Washington, D. C., and find that said National Capital Life Insurance Company of Washington, D. C., have on special deposit in said Central Safe Deposit Company and said Continental National Bank respectively the following securities, to wit. (Here follow the inventories.)

"The gross amount of said securities being one hundred and eighty-two thousand, four hundred dollars (\$182,400) with accrued interest thereon, amounting to twenty-five hundred dollars or thereabouts, the market value of which I am informed and believe to be one hundred and fifty thousand dollars, which said amount of one hundred and fifty thousand dollars constitutes the capital of said National Capital Life Insurance Company of Washington, D. C., in accordance with the terms and conditions of the charter of the said company.

"JOSEPH A. SMITH."

With the equation reduced to simplest terms, B. Noyes, as the embodiment of the Washington Company, then formally contracted with B. Noyes as the embodiment of the New Haven Company, to take the assets of the latter and assume its liabilities. At the end of the fifteen days the bogus capital of \$150,000 was returned to the lenders. In the mind of the inventor the growth that sprang up, blossomed and perished within two weeks, was no more and no less genuine than the "preferred stock," "guaranty capital," and other stuff christened with imposing titles, which "learned judges," on more occasions than one, after "full consideration," had impliedly pronounced good. The wreckage gathered from New Haven afforded the enterprise as launched afresh under a change of colors, the means for coming before strangers in presentable garb.

At the annual meeting of the company, held in Washington early in May, 1876, Benjamin Noyes was elected president; William H. Clagett, vice-president; Henry D. Walker, treasurer; and J. A. Mortimore, secretary. Mr. Walker retained charge of the department of New York and New Jersey, with headquarters at 170 Broadway. A department for New England was created, with headquarters at room No. 2, Insurance Building, New Haven. The company advertised that it had over one million of dollars in assets.

In January, 1877, the National Capital Life contracted to reinsure the New Jersey Mutual Life Insurance Company, of Newark, which had over thirteen thousand policy-holders, and claimed over \$1,800,000 in property. The authorities of New Jersey regarded the trade as a plot to steal the assets. Justice did not delay. In March Noyes was arrested. In May the case was called, and as he did not appear his bail of \$5,000 was declared forfeited. Later he was tried, convicted and sentenced to a term of eighteen months in prison. All efforts to procure a pardon failed.

In October Judge Martin of the Superior Court, on motion of Commissioner Stedman, issued a temporary injunction restraining the National Life and Trust and the American Mutual Life Insurance Companies, their officers and agents, under a

several penalty of \$50,000, from proceeding further in business, except to receive any premiums tendered, and hold the same as a special deposit to abide the order of the court, to pay ground-rents and to receive proofs of losses under policies.

Commissioner Stedman also applied to have a receiver appointed for both companies. Gen. William B. Wooster, of Derby, was appointed by the Superior Court a committee to hear the testimony in the case. On all points he reported in favor of the commissioner. Accordingly, Judge Pardee granted the application. Talcott H. Russell, Esq., of New Haven, was appointed temporary receiver July 1, 1878, and permanent receiver November 9th. In addition to the ordinary functions conferred by law, he was specially authorized to bring suits to collect unpaid subscriptions to the capital stock and for installments on the same, called and improperly canceled. One year from the 8th day of November, 1878, was limited for the presentation of claims against the company, etc.

The managers had taken good care that the receiver should find very little. By an act approved July 8, 1874, the treasurer of Connecticut was authorized to receive "a bond and first mortgage" for the sum of \$100,000, on the insurance building in New Haven, and to surrender to the company all other mortgages and securities held for the protection of policy-holders. The mortgages thus surrendered were duly collected, and the proceeds moved out of the state. Books, papers, everything supposed to have any value, or to throw any light on the past were spirited away. The building could not be stolen bodily, and so remained, a monument of folly and crime. If the rent was not paid promptly by the terms of the lease, the property was forfeited to the lessor. Extracts from a letter of Noyes to Walker, dated June 11, 1876, will show how closely they sometimes came to the edge:

"MY DEAR WALKER :

"We must pay to Bishop who is treasurer of Trinity Church, the ground rent due 1st May, \$2,000. I have paid losses, etc., so that I am short, and we must pay \$1,250 to Fay, sure.

"I have given Smith a line to Mortimer to pay over to you all he can, way down to his bottom dollar, so that you can send your check as treasurer, payable to J. A. Bishop—leaving off Treasurer—for \$2000, so that the ground rent will come direct from you as treasurer, and Bishop will use the money to pay Trinity church debt with, but not credit it at present, for if the legislature at the heel of the session under Stedman's spur, should pass some damnable act of confiscation, the records will show that the building and lease is forfeited to Trinity church, when, in fact, Bishop, their treasurer, had the rent money in hand and it is not forfeited—and we fix it up anew—which, if so done, would wipe out the state deposit."

Mr. Russell fought step by step to recover what belonged to the creditors. The building realized \$35,600, but back taxes and assessments reduced the net to about \$20,000. About \$2,000 was obtained for the Brighton bonds. Stockholders and directors were forced by lawsuits to contribute over \$40,000. Some suits failed through the death or insolvency of the parties. Efforts to hold Post and others pecuniarily responsible for the fraud practiced through their aid, also failed through the death and reputed insolvency of the principal parties. In February, 1893, the receiver closed the trust, having paid two dividends of 5 per cent. each, aggregating \$66,875.76.

On the release of Mr. Noyes from prison late in September, 1879, many citizens of New Haven gave him a reception at the Elliott House. From the tenor of the remarks on that occasion, a visitor unfamiliar with the history of the guest, would have supposed that a hero, persecuted by malice to the verge of martyrdom, had returned at last triumphant, to find among friends of happier days, if not fresh chances for the exercise of rare gifts, at least a retreat for an honored old age. But the blaze

of welcome quickly died away. The last dozen years of fruitless struggle were brightened by few gleams of light. Deserted by nearly every one, Mr. Noyes died in the hospital at New Haven, August 31, 1891, dependent for comforts in his last illness on the kindness of a few old friends.

CHAPTER L.

INSURANCE IN CONNECTICUT—*Continued.*

THE CONNECTICUT HEALTH (HARTFORD LIFE) INSURANCE COMPANY.

DURING its brief existence this company twice changed its name and twice the essential character of its risks. By the act of incorporation, passed in 1848, its business was confined to health insurance. As at a later date could have been foreseen the scheme proved a failure. Facts had not been sufficiently collected and classified to afford a basis for rates. Again, the border lines of ailment that must be crossed to entitle policy-holders to benefits, like isothermal lines across the continent, shadowy at best, grew more tortuous from prospects of indemnity.

The next year the company was empowered to make insurance predicated upon lives, to increase the capital from the limit of \$50,000 to \$100,000, and to change the name from the Connecticut Health to the Hartford Life and Health Insurance Company, which in 1852 was razed to the Hartford Life Insurance Company, the health department, except for early issues, having been entirely abandoned.

It had been formed as a sort of offshoot from the Connecticut Mutual to occupy a field from which this was excluded, but now came into direct competition with its foster-father. For a time the company prospered under the new departure, but in an evil hour tried the experiment of insuring negro slaves and coolies by ship-loads. Although premiums were very high they were still far from remunerative. As a rule the worst masters took out policies and in the most hazardous occupations. Negroes were described as Cæsar or Cato, Jim or Tom, and identification was so difficult that if any of a gang died, names in the proofs of loss were easily fitted to them. Shippers of coolies knew the average percentage of loss, and hence had every advantage in arranging terms. After two or three years the experiment was abandoned, but not till incurable wounds had been left behind. The company withdrew from New York and Massachusetts in 1857, and wound up its affairs with convenient dispatch. It built and occupied the block on Pearl street, now owned and occupied by the State Savings Bank.

The company was well officered, and hence its mistakes are the more surprising. Its president, James Dixon, a winsome, tactful, scholarly gentleman, member of Congress 1845-49, United States senator two terms, 1857-69, succeeded better in politics than with insurance. Conservative by temperament he had little sympathy with measures of reconstruction contrived to secure party supremacy, and hence sided with President Johnson, whose eccentricities brought swift disaster to his cause and its supporters. William T. Hooker, afterward president of the Guardian Mutual Life Insurance Company of New York, was vice-president, and Henry L. Miller, secretary.

THE CHARTER OAK LIFE INSURANCE COMPANY (HARTFORD).

This institution at one time held the promise of a brilliant career, but reckless investments brought its affairs to a crisis from which the fall was not less swift than sad. By the charter the capital was limited to \$200,000, ten per cent. to be paid in cash and ninety in stock notes. The issue of policies on the lives of husbands for the exclusive benefit of wives and children was authorized. Three-fourths of the funds must be invested either in mortgages on real estate of double the value of the debt secured, in the stocks of the United States or of the several states, or in the bonds of New York, Boston and the cities of Connecticut. One-fourth might be loaned upon indorsed promissory notes not having more than twelve months to run. The directors were forbidden to make dividends to stockholders exceeding eight per cent. per annum on the capital.

Books for subscription were opened by the commissioners August 3, 1850. There was such a rush for the shares that nine thousand six hundred and nine (\$969,000) were taken and the first installment paid. The total was reduced by allotment to two thousand (\$200,000). On the 24th of the same month the subscribers organized by adopting by-laws and electing the following directors: Gideon Welles, William T. Lee, Calvin Day, Tertius Wadsworth, Thomas Belknap, Erastus Smith, James G. Bolles, Charles Seymour, Jr., John A. Butler and L. F. Robinson. The board met the same evening and elected Gideon Welles, president; William T. Lee, vice-president, and Samuel Colt, secretary. Archibald Welch, M. D., was appointed consulting physician. He was killed in a railway accident at Norwalk in 1853. Dr. Samuel B. Beresford was then appointed. To his care and skill the company was largely indebted for the excellent character of its risks.

Mr. Welles, an able writer on current political topics, in early life a stalwart advocate of Jacksonian Democracy, a frequent member of the legislature, comptroller of the state, postmaster at Hartford, and Secretary of the Navy under Presidents Lincoln and Johnson, retired from the presidency in March, 1852. He was succeeded by A. Gill. John L. Bunce was elected vice-president, and James C. Walkley, secretary.

To increase the cash assets to \$100,000, the board voted in June, 1852, to sell to William T. Hooker stock-notes amounting to \$74,340, for the sum of \$67,025, the proceeds to lie as a special deposit at five per cent. interest in the Connecticut River Bank till February 28, 1853. In February, 1853, the notes were repurchased from Mr. Hooker at the original price. Early in March the process was repeated on a smaller scale. Notes of a face value of \$50,390 were sold for \$50,000, and the proceeds deposited as before.

The difference in the sums realized from the two sales was made up in the cash assets of the company from the profits of the year. In July, 1854, a different device was adopted to meet the legal requirements of certain states that excluded outside companies unless they could show a given amount of paid-up capital, invested in approved securities. Instead of selling the stock-notes and making a special deposit of the proceeds for a definite period at the expiration of which they were to be repurchased, and so on in a round of concentric circles, the secretary was authorized at discretion to sell them and with the proceeds buy bank, state or city stocks to stand in the name of the company. The institution further agreed to buy back the notes whenever requested by the purchaser at the "full amount thereof," and, to provide the means, the secretary with the consent of the president was authorized to sell any of the stocks in the treasury.

As parties bought and sold, the stock-notes changed, but care was taken to accept none unless good. As we have seen this feature played a very important part in early insurance when the country was comparatively poor. In some other states the device was used fraudulently to launch companies without resources beyond a few chairs and other furniture. In Hartford, from first to last, both makers and endorsers expected to meet the obligations in full if need arose. When the Protection failed two or three tried to evade payment on technical pleas, but were beaten in the courts. The war against stock-notes that began about the middle of the century in several states was not provoked by any abuse of the system in Hartford.

In March, 1855, James C. Walkley was elected president, and Elias Gill secretary. Up to this time the position of president had been honorary rather than active. He now became the real head and was expected to devote his energies to the work. At the end of the fiscal year Mr. Gill resigned, and was succeeded by Samuel H. White. Few changes occurred in the office corps during the next decade. Thomas W. Russell, elected vice-president in '59, was succeeded by Noyes S. Palmer in September, '64. Z. A. Storrs followed Mr. Palmer, and was succeeded by Mr. White in '72. Halsey Stephens became secretary in January, '73. While secretary and vice-president, Mr. White also acted as treasurer.

In March, 1867, the board voted that the president and secretary notify the stockholders to pay up in cash twenty-five dollars per share, within thirty days after demand, and the secretary was directed to indorse the same upon the stock-notes. Two reasons are given; first, the legal requirement in several states of a paid-up capital in the sum of \$150,000; and second, the ability to loan on the best bond and mortgage security at eight per cent. a year, "so that the maximum dividend of eight per cent. semi-annually as specified by our charter, can be declared and paid regularly when \$150,000 are paid upon the capital stock."

A year later, in March, 1868, another vote was passed in substantially the same language calling in the final twenty-five dollars per share, so as to raise the paid capital from \$150,000 to \$200,000, and directing the secretary to surrender to the makers the stock-notes in the treasury.

That in both instances the money for paying the installments was furnished by the company, the record omits to mention, possibly on account of the provision in the charter which made it unlawful for the directors to make dividends exceeding eight per cent. per annum upon the capital. By a curious lapse each vote refers to the charter as permitting a maximum dividend of eight per cent. semi-annually.

Whether the reasons given for the transactions were addressed to possible visitors from the insurance departments of other states, or were thrown in to beguile the historical inquirer of the future, must be left to conjecture.

At the close of 1863 the company had in force 3,047 policies insuring \$5,909,011, with gross assets amounting to \$657,387, exclusive of \$100,000 in stock-notes. For the next nine years growth was rapid and apparently solid. Among the agents of the Charter Oak was a large infusion of men of high character and wide influence, who secured for it a very desirable clientage. In 1869 over seven thousand two hundred new policies were issued, insuring over \$18,000,000. Though this was the most fruitful year in its history the three that preceded and the three that followed indicate great activity on the part of its agents and great confidence on the part of the public.

In the face of superb labor in the field the home management was weak and wasteful. As from the walls of a reservoir too flimsy to resist the pressure from within, all at once both patrons and the public saw the contents of the treasury pouring to waste through several bad breaks.

The first official warning of danger came from John W. Stedman, insurance commissioner of Connecticut, in his first annual report, dated June 9, 1875. After describing the charter provisions of the company he says:

"Only ten dollars a share was ever paid up on the capital stock. The remaining ninety dollars were paid in dividends. On this full paid stock a dividend of eight per cent. is regularly paid according to law, and in addition to this the commissions on the business in the home office are divided among the stockholders, amounting in some years to as high as fourteen dollars a share. Certainly nothing of this kind could have been contemplated by the legislature in granting the charter of the company, and I think it wholly unwarranted." . . . "I have thus made a full and fair presentation of the embarrassments of this company. There has been a weakness of judgment in its confidences, and a carelessness in loaning its money and scattering it in gratuities, amounting to a moral delinquency."

The embarrassments were more serious than could then be known. Early in 1875 the banking house of Allen, Stephens & Co. failed, owing the Charter Oak \$944,816. A part of the indebtedness grew out of a joint interest in a silver mine in Utah, and other ill-defined speculations. The claim has since yielded very little except trouble and expense.

Early in the seventies the Valley Railway was built from Hartford to Saybrook on the west bank of the Connecticut. Mr. Walkley, who lived down the river, was father and president of the company. Hartford subscribed half a million toward the stock, which was increased by subscriptions, mostly from other towns, to a little over a million. First mortgage bonds were issued to the extent of another million. In 1873 the cost per mile for construction was given as \$58,858, and for equipment, \$5,834. The excess, furnished almost exclusively by the Charter Oak, was carried as floating debt to the extent of \$1,177,564. For convenience this, including, perhaps, other items, was funded in second mortgage bonds to the amount of \$1,250,000, which were lodged with the insurance company as security for loans aggregating \$1,083,456. As the railway, coming eight months out of twelve in competition with a navigable river, was earning little, if anything, above current expenses, the outlook for the junior bonds was extremely dismal.

To build up business for the road \$235,874 were loaned to a manufacturing concern in Higanum, and \$75,000 upon a summer hotel in Saybrook, with \$25,000 additional on the furniture. Mining property in West Virginia absorbed another half million of cash, and the returns from this also have come chiefly in the form of bills and worry.

While the sky was still cloudless the company erected, at a reported cost of \$844,380, its home office at the corner of Main and Athenæum streets, moving in early in '71. Hot disputes afterwards arose at intervals over the value of the property. Sixteen years later it was sold to the *Ætna Life* for \$231,000.

Minor embarrassments are passed by not because they were trivial in themselves, but trivial in comparison.

Great alarm followed the official disclosure of this condition, and a lively hunt for some mode of relief. At this juncture an officer of the New York Chamber of Insurance, and an expert in the business, brought the agents of the company into relations with Henry J. Furber, vice-president of the *Universal Life* of New York, who had already taken a hand in winding up the affairs of several that in the wild extravagance of the time had been driven into close corners. Mr. Furber had recently won the good-will of the insurance department of New York, by saving for the *North American Life* a large line of bonds and mortgages, liable to forfeiture from taint of usury. After several interviews with the commissioner and other prominent citi-

zens of Connecticut, and, with their approval, Mr. Furber purchased the stock of the Charter Oak in the name of himself and his friends.

From the progress then made in his investigations the commissioner thought that a contribution of half a million of dollars in fresh funds would make good the impairment and restore technical solvency. Mr. Furber agreed to give that amount outright. He was to be indemnified by monthly payments of seven and one-half per cent. on all premiums collected, and by one-half the salvage on all policies purchased during the next five years. It was further agreed that at the option of the company the contract might be liquidated at any time before the expiration of the term, after Furber had received \$500,000 with interest from the proceeds of the contract, and in addition such further sum for services and risks, as the parties might agree upon. In case of disagreement upon the terms of liquidation the matter was to be referred to three disinterested arbitrators, one selected by each party, and the third by the persons so chosen. Their decision was to be final.

The commissioner took the view that the \$500,000 should not be charged as a liability, as it was to be repaid gradually from the loading of premiums. On the other hand, the special commission afterwards appointed contended that it became an immediate liability, and hence did not technically help at all to repair the gap in the assets.

A point less open to dispute was the extreme improbability that a man in reality making a contract with himself would have serious trouble in fixing the compensation for "services" and "risks," or that he would harm his bank account by "liquidating" it prematurely.

The affairs of the company passed into the hands of the new management late in 1875, Edwin R. Wiggin having been elected, December 9th, acting president for the rest of the year.

At the next annual meeting, January 25, 1876, James C. Walkley, S. H. White, Nelson Hollister and Daniel Philips were re-elected directors, while Edwin R. Wiggin and A. H. Dillon, Jr., were added. The same day Edwin R. Wiggin was elected president; S. H. White, vice-president and treasurer; A. H. Dillon, second vice-president; Halsey Stevens, secretary; and William J. Squire, assistant-secretary. J. C. Walkley was appointed advisory counsel, and Henry J. Furber, financial manager. Furber and Wiggin were not old associates, but were first brought together in this venture.

Mr. Furber, whose ability no one ever questioned, went to work at once to introduce order and system, in the place of disorder and confusion. He soon found that he had been greatly deceived as to the condition of the company. Assets had been overstated, and liabilities understated. In June he put Thomas M. Smith, an expert, on the premium note account, with instructions to ascertain and report its exact condition. Edmund A. Stedman, actuary of the State Insurance Department, went over the same ground, starting later. Both labored for months, and their final footings differed by less than \$20 (\$18.03). But the amount was nearly \$1,000,000 less than claimed in the previous annual statement. The result was promptly reported to the department, and embodied in the next return.

Meanwhile, the large debt of the Valley road, the Higganum shops, the Saybrook Hotel, the West Virginia mines, the claims against Allen, Stephens & Company, to say nothing of minor "investments," were not only yielding no income, but several at best were sources of vexatious expense. The only light ahead came from the excellent quality of the insurance risks scattered over the country. And now the insured were learning how their premiums had been locked up in ominous speculations.

One cannot help admiring the courage and fertility of resource with which Furber met the crisis. The company had a mortgage for \$800,000, taken in 1875, on eight parcels of property in New York city, owned by Edward Mathews, one of the largest holders of real estate in the city. He was greatly pressed for cash. In December, 1876, Mr. Furber bought from him the eight pieces, nearly all located on Broadway, for \$3,030,000, releasing the company's mortgage of \$800,000, assuming prior mortgages to the amount of \$948,000, turning in the second mortgage bonds of the Valley road (\$1,250,000), at \$1,047,000, and paying \$235,000 in cash. The trade was conducted under the eye of Commissioner Stedman, who sent to the New York department for an official appraisal. The superintendent of that state selected Thomas Knowlton Marcy, who made his report December 9th. Mr. Marcy went over the records and accounts of each piece with great care. He found the total annual expenses for taxes, insurance, repairs, etc., to be \$47,887, the income from rooms actually rented, \$235,480, and the net income, \$187,593. He fixed the appraisal at \$3,000,000, on which the property was yielding net yearly revenue at the rate of over six per cent. (6.24). Rooms then vacant were estimated to be worth \$28,500 additional.

Similarly Mr. Furber traded the Higganum mortgage, amounting, with interest, to \$250,000, for productive property in the heart of New York city.

It should be remembered that the winter of 1876-7 was the most dismal part of the long period of depression which followed the great financial panic of 1873. An undecided contest for the presidency of the Republic was then piled on our other troubles.

The New York property received in the trade is now estimated to be worth over eight millions. Instead of holding it for better times the company placed a price on each parcel, and sold as the market rose to its figures, the best going first. On the other hand the Valley bonds never yielded a dollar of revenue, and in the subsequent reorganization of the road were wiped out utterly.

In January, 1877, a petition signed by eleven influential policy-holders was presented to the General Assembly, asking that the affairs of the company be investigated. This was but a symptom of the distrust that pervaded the community. Through the *Guardian* and the *Universal* Mr. Furber had reinsured many weak companies. Thousands of poor people had been induced to sell or exchange policies for fractions of the reserve charged against them. This process was justly regarded in Connecticut, and especially in Hartford, as one of the most heartless and cruel contrivances ever devised for fattening the few at the expense of the many. Large local interests in the business had educated the people to regard the custody and management of life insurance funds as a most sacred trust. With such convictions, many felt that the intrusion of the methods in vogue in Mr. Furber's New York companies must be prevented at all hazards. In March, 1877, the superintendent of that state began an exhaustive examination of the *Universal*. In July his report, severely condemnatory, was made public. While the work was in progress various scraps of fact and inference found their way across the border, adding fuel to the flame.

As a result of the agitation a law was passed creating a special commission to investigate the life companies of the state. It consisted of Origen S. Seymour, H. M. Cleveland and David P. Nichols. During his life Judge Seymour, the chairman, filled with distinguished credit a seat on the bench of the Supreme Court of the state. He was a man of sound judgment and unquestioned probity. The special commission made a preliminary report to Commissioner Stedman, June 21, 1877, finding a deficit of \$2,063,412.38. In reaching the result they reduced the appraisal on the two

New York city purchases from \$3,030,000 and \$800,000 to \$1,845,000 and \$505,000 respectively. The special commission discovered nothing not already known to Mr. Stedman. But the point of view and animus differed. Mr. Stedman saw that the situation was desperate, and in his anxiety to save the institution from ruin and its patrons from loss, gave the management the benefit of every doubt. On the other hand, the special commission (and we may safely concede that both were equally sincere) drew its inspiration from prevalent distrust and hostility.

The law relating to the winding up of insurance companies passed in 1875 left it optional with the commissioner when he found the assets of any such company impaired to notify it to cease the issue of new policies and the payment of dividends until the deficiency should be made good, but in case the assets were found to be less than three-fourths of the liabilities he was required to apply to the courts for the appointment of a receiver and the annulment of the charter. The commissioner consulted eminent counsel and hesitated. At length, borne down by overwhelming pressure, on the 14th of July, he applied to Dwight W. Pardee, one of the judges of the Supreme Court, for the appointment of a receiver. An injunction was accordingly issued. After several adjournments, July 30th, by common consent the injunction was dissolved. During the pendency of the petition plans were arranged for the transfer of the company to other hands. On the 28th, the old directors resigned *seriatim*, and the vacancies were immediately filled by the election of Marshall Jewell, William W. Eaton, George P. Bissell, Robert E. Day and Elisha Johnson. George E. Hatch held over, and J. M. Allen was added later. Simultaneously the old officers resigned. The new board at once organized and elected Marshall Jewell president of the company.

One of the last acts of the old regime before issue of the injunction was to borrow two hundred thousand dollars of the *Ætna Life* by mortgaging the Charter Oak building.

There is no evidence that Mr. Furber by word or deed ever tried to deceive either the commissioner or the special commission. His ways, avowedly dictated solely by self-interest, were bold and open. He did not pose as a Christian, or shed tears to be seen of men over the woes of deceived and defrauded policy-holders. Masterful in resource, if let alone he would have saved the company because its rescue was clearly for his interest. Yet, whether it was to live or die, the part of the community who believe that life should be something higher and nobler than a game of grab, breathed more freely when this adept in the game departed.

Early in July an influential committee was raised to see whether the ratio of assets to liabilities would justify an attempt to save the company from a receivership. A sub-committee, consisting of Colonel Jacob L. Greene, Thomas O. Enders, Gustavus F. Davis, and John M. Holcombe, after making as thorough an examination as the time permitted, on the 25th of July reported that economy and efficiency of management, supported by confidence on the part of policy-holders, would probably enable the company to pay all claims in full and regain solvency.

Marshall Jewell had a national reputation. He was not only successful in business, but had been governor of the state, minister to St. Petersburg, and postmaster-general. His purchase of a large majority of the stock and acceptance of the presidency promised to supply the essential conditions of recovery suggested by the sub-committee. But the change came too late. New business had ceased. Many policy-holders, taking advantage of the terms of the contract, demanded paid-up insurance to the value of their claims. While revenues were cut off, death losses and expenses continued to pour in.

In September the directors voted to scale the capital forty per cent., and to pay no dividends on the balance for five years. They also asked policy-holders to scale the liability on that account forty per cent., also promising to restore the amount so relinquished, if possible, from gradual sales of unproductive property. Claims from deaths and endowments were scaled to the same extent.

Many policy-holders consented and many held back. Meanwhile demands upon the treasury far outran income. The gentlemen who had undertaken the work of rescue became discouraged. At their suggestion, commissioner Stedman in January, 1878, again applied for a receiver. The legislature was in session, and all parties in interest now united in asking for such amendments to the charter as would enable the policy-holders to re-organize on a purely mutual basis. The act was passed and approved March 15.

On the 18th of April the policy-holders met, accepted the amendments to the charter, and elected a board of twenty-one directors. After much persuasion, George M. Bartholomew took the presidency, June 3d. Halsey Stevens continued as secretary till succeeded by Charles E. Willard in June, '79.

In December, 1878, Messrs. Wiggin, Furber, Walkley and White were tried at Hartford before Judge James A. Hovey for conspiracy. For the state appeared William Hamersley, L. F. S. Foster and John R. Buck; for the defense, Leonard Swett, of Chicago, Governor Dorsheimer, of New York, Daniel Chadwick, of Lyme, Conn., with Charles E. Perkins, A. P. Hyde and Lewis E. Stanton, of Hartford. The trial lasted twenty-four days and resulted in a verdict of acquittal for all the defendants. A witness, whose testimony before the grand jury had been decisive, meanwhile had met with a change of heart and put himself beyond reach of the court.

After the return home of the invaders from New York city Wiggin presented to Governor Jewell, for adjustment, a contract made with President Walkley, without the knowledge of Furber, to run for five years, and calling for two and one-half per cent. on all premium receipts. According to Wiggin the consideration was his share in persuading Furber to put up the famous \$500,000. Mr. White had a like contract. Generosity, even colossal generosity, in handling the money of others, is not an uncommon trait. The claim was pressed, but defeated.

Mr. Bartholomew's consent to take the presidency renewed the courage of all parties in interest. Gifted with quick and keen perceptions, he was a man of affairs, accustomed to handle large transactions without neglecting details. He had the full confidence of the community and was much in demand for positions of trust. But, as can be seen now, the fight for life was hopeless from the start. The forlorn condition of the company had been widely advertised. No upright and competent agent would canvass for a concern visibly doomed. No one intelligent enough to make a desirable risk would take a contract from it. Following a lead started, but soon abandoned, by President Winston, of the New York Mutual Life, the Charter Oak years before had cut rates about twenty per cent., and thus on live policies was deprived of the margin available for repairs. Maturing claims constantly exceeded income. One piece of property after another was sold and the proceeds applied to meet current demands. Its credit withered. To raise funds Mr. Bartholomew from time to time gave his personal indorsement to the amount of over \$2,250,000. With the moneys thus procured the company in a single year saved \$340,000 by buying up claims. Between July, 1878, and July, 1886, \$6,311,165.17 were paid to policy holders, the number of whom was reduced from about twenty-two thousand to less than ten thousand. Yet heroic treatment failed to arrest the progress of the disease. With steady step creeping paralysis drew near the vitals.

At length, in September, 1885, Ephraim Williams, insurance commissioner, applied for a receiver on the ground that the impairment of assets exceeded the legal limit of twenty-five per cent. The case, tried before Judge Granger, turned on valuations—a question prolific of wide diversities of opinion. After a contest of two months the suit was withdrawn.

A year after the application for a receiver, or in September, 1886, the final explosion came with a sudden and dreadful shock. Heavy embezzlements from the Hartford Silk Company and from the Union Manufacturing Company of Manchester, were brought to light by the flight of the person who was both president of the Silk and treasurer of the Union. Mr. Bartholomew was president of the Union Company, a director in both and personally a heavy endorser of their paper. At a special meeting of the directors of the Charter Oak, held September 18th,

“Mr. Bartholomew stated that for some time he had had in his hands, as a matter of protection from annoying attachments, a large amount of the company’s funds; that he had held himself ready to pay over these funds to the company as needed, although he had not kept them distinct and intact; that now, owing to his embarrassment growing out of the troubles of the Hartford Silk Manufacturing Company, for which he was a heavy endorser, he found himself unable to pay this company the amount due them; that he had handed to the secretary, as collateral security for this debt, certain securities which he believed would in time, at least, be worth the full amount of his indebtedness. Mr. Bartholomew said further that he deemed it necessary to make some temporary arrangement for protecting the company and continuing its business.”

Possessing unlimited credit, reticent, self-centred and, till awakened too late to the error, confident of ability to meet every demand upon him as occasion arose, Mr. Bartholomew suddenly found himself unable to do so. During a long career he had signed many bonds of indemnity, especially for young men, and had indorsed paper to the amount of many millions.

September 20th Mr. Bartholomew resigned. The board directed its counsel, Charles E. Gross, to apply for a receiver. There was no opposition. Judge Pardee selected in succession Jonathan B. Bunce and Robert E. Day. Both declined. He then appointed Isaac Brooks, of Torrington, and Edmund A. Stedman, of Hartford, who both qualified.

Thus from mortal wounds inflicted twelve or fifteen years before, an institution once strong and promising, was brought to the grave.

After many delays a dividend to policy-holders of fifteen (15) per cent., amounting to \$458,775.49, was paid. January 22, 1897, the court made a final order distributing the rest of the assets (\$105,747.21) in payment of sundry expenses and fees, and a last dividend of three and one-fourth per cent. to policy-holders.

When the impairment of assets, caused by the recklessness of the Walkley-White *regime*, was first brought to light, both the company and a large percentage, if not the full amount of claims of policy-holders, could have been saved had the law been less mandatory and left a wider range to the discretion of the commissioner. Had it come within the power of the office to substitute a competent for an incompetent management, and to enforce such slight scaling of claims as would have restored technical solvency, the beneficiaries under its contracts would have received nearly their full dues instead of the beggarly dribblets that finally reached them.

CHAPTER LI.

INSURANCE IN CONNECTICUT—Continued.

THE ÆTNA LIFE INSURANCE COMPANY (HARTFORD).



THE year after its incorporation, in 1819, the Ætna (Fire) Insurance Company obtained an amendment to its charter, authorizing it to grant annuities, upon an additional capital not exceeding \$150,000, to be held as a separate guaranty for the liabilities arising under the business. The privilege was never exercised. In 1850, by a second amendment, the ancillary company was empowered to grant insurance upon lives, and thirty years after the inception of the original plan, organized as the Ætna Insurance Company Annuity Fund. Rights to subscribe were distributed among the owners of the parent company in proportion to their holdings. Officers of both were the same, certain directors, with Eliphalet A. Bulkeley as chairman, having been delegated to manage the affairs of the new department.

After a brief experience, it was thought best that the control of the two institutions should be made separate and distinct, and accordingly, in July, 1853, by still another amendment to the charter, the child was launched on its independent career under the name of the Ætna Life Insurance Company. Original directors were E. A. Bulkeley, Austin Dunham, H. L. Pratt, Lawson C. Ives, Mark Howard, John Warburton, Roland Mather, S. L. Loomis, J. W. Seymour and W. H. D. Callender. E. A. Bulkeley was chosen president, and John W. Seymour, secretary.

During the first decade of its existence the company developed slowly. It will be remembered that a period of long, and at times severe, financial depression preceded the war—a condition that bore heavily upon new enterprises, and brought to both new and old widespread mortality.

Till 1861 all contracts for insurance made by the Ætna Life were written on the proprietary plan. It then began to issue participating policies, and established a mutual department under the same control, but with entirely distinct books, accounts, and investments. Since then applicants have had their choice between the two methods. Till 1868 patrons on the mutual side were allowed to pay a part of the premiums by note, a system once quite popular, but under plans then matured all subsequent contracts have required payments in cash.

One of the first effects of the war was to aggravate the depression previously existing. As it went on, and issues of paper currency stimulated speculation and extravagance not less than legitimate business, the life companies already in the field soon began to profit from changed conditions. Large numbers of men rushed into hazardous ventures, and amid the uncertainties of their private affairs, made provision for their families by taking out heavy lines of insurance. Others of more prudent habits were influenced by the example to investigate the merits of the system, and to avail themselves of the same protection. Inquiry could not fail to satisfy the mind that the principles were sound, or that any well-managed company must always be in a position to meet maturing obligations. The sudden popularity of life insurance was due partly to more urgent need of its benefits, and partly to more thorough comprehension of the subject.

Nowhere is the greatness of the change in the attitude of the public towards

life insurance more clearly reflected than in the records of the *Ætna*. In 1863, thirteen years from the date of organization, its assets amounted to \$310,492. In 1866 they had risen to \$2,036,823. The impetus then given to the development of the company was stimulated and multiplied by the energy of the management. Its subsequent growth in resources and surplus, in reputation and popularity, has never for an instant been checked by adversities of any nature, or troubles from any quarter. It has been singularly fortunate, too, in avoiding the errors of judgment which intelligence and prudence may, without discredit, be expected to make under the law of averages. In 1868 its assets had increased to \$7,538,612; in 1878, to \$24,141,125; in 1888, to \$32,620,676; and in 1897, to \$45,557,272. Its surplus January 1, 1875, was \$1,561,810; and gaining each year during the next two decades, reached \$6,711,502, on January 1, 1897.

Success far transcending the dreams of the founders, and on the whole, perhaps, unsurpassed in the records of life insurance, viewed in the light of strength rather than size, either in Europe or America, is easily explained. One of the postulates of the business demands that investments shall yield an annual income of four per cent., the excess being available either for immediate distribution among the insured, or for building up a fund held in reserve to meet claims maturing possibly many years later, when the rate of interest on approved security will certainly fall below that figure. The *Ætna Life* was a pioneer in loaning to western farmers, having entered the field under highly favorable conditions. At the time when its treasury began to be distended by the volume of inflowing premiums, the Illinois Central Railway had a large number of outstanding contracts with settlers on their lands, agreeing to convey titles on payment of the purchase money. Both sides desired the completion of the contracts. At this juncture the *Ætna Life* came forward and furnished the needful funds, taking mortgages on the farms as security. All the early loans bore interest at ten per cent. The arrangement proved highly advantageous to both lender and borrower. The fertility of the soil attracted heavy immigration, with consequent enhancement in the value of the properties. While the company had abundant reason to be satisfied, thousands of farmers rose from poverty to wealth by the aid thus afforded them. As the region grew rich and the loans were paid off, the company pushed westward into Iowa, repeating the process on the same terms. Employing only trained and faithful agents, it seldom met with defaults, and when compelled to foreclose, generally succeeded, by patience, in drawing a profit from the transaction. The perils of growing competition were met by increase of carefulness, one of the rules being to loan in no case in excess of the value assessed for taxation.

In view of the good fortune that has attended the farm loans of the company, it is not singular that this has continued to be with it a favorite form of investment. On January 1, 1897, it had, thus placed, \$25,200,422, secured by over seventeen thousand mortgages on as many separate blocks of real estate, representing a total value of over \$105,000,000. On the few foreclosures that have occurred the books show a balance for the credit side.

While loanable funds were much less abundant than now, the *Ætna Life* also invested largely in the bonds of prosperous cities at the West, bearing seven and seven and three-tenths per cent. interest. On transactions involving many millions the losses were few and small. The surplus annually accruing from investments of extraordinary productiveness enabled the company to return generous dividends to the participating policy-holders, which in turn stimulated growth in new business, and added to the tide of inrolling premiums.

Its risks have been confined to the healthiest parts of the northern states and Canada, where the death rate is comparatively small.

The capital remained at \$150,000 till 1878. With over twenty-four millions of assets and nearly two and three-fourths millions of surplus, the company then petitioned the General Assembly for authority to increase the capital to an amount not exceeding \$750,000, and the charter was amended accordingly. The act required the increase to be made from such surplus funds as were derived from business done upon the non-participating stock plan of insurance, and to have the approval of the state commissioner. Dividends were limited to ten per cent. per annum, and contributions for this purpose from the mutual department were limited to \$9,000 per annum. The capital stood at \$750,000 from 1878 till 1883, when the General Assembly again amended the charter authorizing a further increase to \$2,000,000. It was increased May 16, 1883, to \$1,000,000; January 1, 1887, to \$1,250,000; July 13, 1892, to \$1,500,000; and July 1, 1895, to \$1,750,000.

Eliphalet Adams Bulkeley continued at the head of the company from its inception till his death February 13, 1872. He was born in Colchester, Conn., June 20, 1803, graduated at Yale College in 1824, studying law with William P. Williams, of Lebanon, and about 1830 opened an office in East Haddam, where he was also president of the local bank. Thence he was elected to both branches of the General Assembly. In 1847 he moved to Hartford, where he formed a law partnership with Henry Perkins under the firm-name of Bulkeley & Perkins. He was first judge of the local police court, school fund commissioner, and in 1857 speaker of the House of Representatives. He was one of the organizers and first president of the Connecticut Mutual Life. Later the *Ætna* absorbed his energies, while incidentally as director he was connected with many other corporations. He was noted for punctuality and for the personal care given to all matters which legitimately claimed his attention.

Thomas Ostram Enders, immediate successor of Judge Bulkeley, was born in Glen, N. Y., September 21, 1832. He became interested in insurance through John G. North, of Meriden, who employed him as solicitor. He moved to Hartford, and at the age of twenty-two took a clerkship in the *Ætna* Life, and was elected secretary four years later. His industry, fidelity and remarkable aptitude for the business contributed largely to win phenomenal success for the company. To build this up he sacrificed himself. Severe toil, carried often late into night, broke down his health, and shortened his days. In 1879 he resigned, and rested for two years. In 1881 he took the presidency of the United States Bank, then called the U. S. Trust Company. At the time it was suffering from old losses, and the stock was quoted at sixty or less. Under his guidance it shot rapidly ahead. When he resigned in 1892, the bank, in percentage of surplus, value of shares, and ratio of deposits to capital, held the lead in the city by a long interval. Mr. Enders had his residence over the line in West Hartford. He represented that town in the General Assembly for the sessions of 1889 and 1891. He died June 21, 1894.

On the retirement of Mr. Enders, Morgan G. Bulkeley, son of the founder, became president. Born December 26, 1837, and educated in the public schools of Hartford, he began his business career in a mercantile house of Brooklyn, N. Y., in 1851, rising in seven years from the grade of errand boy to partner. When the war came, he enlisted in the Thirteenth New York regiment, and went to the front. On the death of his father in 1872, large local interests brought him back to Hartford, where he served in both branches of the city government, and for eight years as mayor, looking closely and intelligently after the financial and other interests of the public. In 1888 he was elected governor of Connecticut, and, owing to the deadlock between the two branches of the General Assembly that convened in January,

1891, he held over, under the Constitution, for a second term of two years. While Governor Bulkeley has devoted much time to the public, figures show that the interests of the *Ætna Life* have not suffered.

Vice-presidents have been: J. W. Seymour, 1856-7; John Warburton, 1857-60; S. L. Loomis, 1860-63; Austin Dunham, 1863-77; W. H. Bulkeley, 1877-9; and J. C. Webster, since 1879. The position was honorary till 1879. Mr. Webster has served the company since 1865, having been general agent and superintendent of agencies before taking the vice-presidency. Secretaries have been: J. W. Seymour, 1853-5; Samuel Colt, 1855-8; Thomas O. Enders, 1858-72; and since 1872, J. L. English, whose entry into business was made with the company in 1867. The position of assistant-secretary was created in February, 1890, and was filled by George W. Hubbard, an employee for a quarter of a century, till his death, October 13, 1893. He was succeeded by Charles E. Gilbert. Dr. Gurdon W. Russell, as examining and consulting physician, has been connected with the medical department from the start. Dr. James Campbell was elected medical examiner, February 13, 1894, working in connection with Doctor Russell. Howell W. St. John, the present incumbent, was appointed actuary in October, 1867. Except from death, very few changes have occurred in the official corps.

Under the general statutes the *Ætna Life* opened an accident department, January 1, 1891. Just six years later it had in force eighteen thousand, five hundred and thirty-two policies, insuring \$79,083,850. Vice-president Webster has immediate charge of this branch; Walter C. Faxon, also connected with it, was made assistant secretary in October, 1893.

RECEIPTS TILL JANUARY 1, 1897.

Premiums	\$123,971,464.75
Interest	45,866,940.55
Total	\$169,838,405.30

DISBURSEMENTS TO POLICY-HOLDERS.

Death losses	\$42,833,641.22
Matured endowments	17,623,658.64
Surrender values paid	20,650,164.27
Dividends to policy-holders	18,590,343.88
Total	\$99,697,808.01

Number of policies in force January 1, 1897, eighty-seven thousand, six hundred and fifty-eight, insuring \$145,635,940.

In economy of management the *Ætna Life* ranks with the first three or four of American companies. It began upstairs in a small room on State street under the wings of its elder brother, the *Ætna Fire*.

John C. Webster, vice-president, was born at Kingfield, Me., May 24, 1839. Equipped with a good English education, he learned the printer's trade, and before reaching the age of twenty-two was at the head of one of the largest printing offices in Concord, N. H. In 1864 he became agent of the *Ætna Life* in that city, and soon after general agent for the state of New Hampshire. In 1873 he was made superintendent of agencies, when he moved to Hartford. He has been vice-president since July, 1879. For fifteen years, up to 1895, he edited the *Ætna*, a quarterly publication devoted to the interests of the company. He organized and has had throughout special supervision of the accident department.

Joel L. English, born October 1, 1843, at Woodstock, Vt., in 1867 entered the Hartford office of the *Ætna Life* as a clerk, and was appointed secretary in 1872. In

this single company his life has been devoted to the performance of a ceaseless round of duties. While a life of quiet work may be bare of dramatic incidents, Mr. English is regarded by the profession as one of its most accomplished members.

Howell W. St. John, actuary, was born at Newport, R. I., in April, 1834. After graduating from Yale University as a civil engineer, he pursued the profession in the South and West until October, 1867, when he became actuary of the *Ætna Life*. He is one of the charter members of the Actuarial Society of America, was its president in 1893 and 1894, and one of its delegates to the International Convention of Actuaries held at Brussels in September, 1895.

Charles E. Gilbert, assistant secretary, was born in Wallingford, Conn., November 8, 1836. During the war he was employed in the offices of the mustering officer and the military commandant of Connecticut and Rhode Island. In 1868 he was made cashier of the *Ætna Life* and assistant secretary in February, 1895.

With customary good fortune in 1888 the *Ætna Life* acquired for \$231,000 the commodious and elegant building erected by the Charter Oak Life, at a cost by the books of \$844,380. The home offices were transferred to the new quarters in the summer of that year. The marvelous growth of the *Ætna Life* cannot be repeated in the future by any similar organization, because the conditions which rendered the process possible have passed never to return.

THE PHOENIX MUTUAL LIFE INSURANCE COMPANY (HARTFORD).

Proceeding on the theory that total abstainers from the use of alcoholic drinks could safely be insured at lower rates than miscellaneous risks, accepted, without close regard to personal habits, a number of men, connected for the most part with the temperance reform, in 1851 secured a charter for the American Temperance Life Insurance Company. The incorporators were: Barzillai Hudson, a prominent leader in the crusade against alcohol; Benjamin E. Hale, editor of the *Fountain*, a cold-water sheet; Thomas S. Williams, ex-chief justice of the Connecticut Supreme Court; Francis Gillette, a noted abolitionist in the formative period of the party, and for a year in the United States Senate; James B. Hosmer, philanthropist, who left large sums for public uses; Francis Parsons, a prominent lawyer; and Edson Fessenden, keeper of the Eagle Hotel.

The capital was placed at \$100,000, divided into shares of \$50 each, with power to increase to \$200,000. Ten per cent. was required at the time of subscribing, six per cent. within twenty days after organization, and the balance was allowed to rest in stock-notes.

Books were opened July 22d by H. S. Ramsdell, Andrew T. Judson and A. M. Collins, commissioners, and were closed at noon the next day when it was found that twenty-three hundred and forty-three shares of \$50 each had been taken. The number was scaled to two thousand. On the 24th the subscribers met at the *Fountain* office and elected for directors B. Hudson, J. B. Hosmer, T. Wadsworth, F. Parsons, Albert Day and John H. Goodwin. B. E. Hale was elected secretary for the year ensuing on the same ballot. In the afternoon the directors chose B. Hudson president, and Tertius Wadsworth vice-president. On the 28th the board already elected chose four additional members, viz.: W. W. Hoppen, Noah Wheaton, Francis Gillette and Edson Fessenden.

August 4th by-laws were adopted. The distinctive article provides that the company shall take no risks upon the lives of persons addicted to the habitual use of intoxicating liquors as a beverage.

Moved by strong convictions, advocates of temperance gladly accepted an oppor-

tunity to subject their beliefs to a practical and perhaps decisive test. Accordingly, tables were prepared graduating the cost of insurance about ten per cent. below current rates, and the issue of policies began. All premiums were at first required in cash. Had the scheme met with popular favor perhaps the correctness of the theory would have been demonstrated. However, persons interested in the cause did not hasten to seize the privilege, and others did not care to sign a pledge of perpetual abstinence in consideration of the discount. Solicitors found the restrictions placed upon the freedom of the individual an ever-present obstacle, blocking the persuasive force of their eloquence. Satisfied after a fair trial that, however correct the principle might be, the attempted application of it ran counter to the inclinations of human nature, the managers abandoned the temperance feature in 1861, conformed the rates and contracts to the common practice, and with legislative permission, changed the name to the Phoenix Mutual Life Insurance Company.

Many of the risks taken under the original plan still remain on the books, and as a whole have perhaps justified the opinions of the founders in regard to the greater longevity of those who entirely avoid spirituous drinks.

October 5, 1852, Benjamin E. Hale was chosen president for the rest of the year, and James H. Holcomb, secretary. Mr. Hale resigned February 23, 1853, to take the general agency of the company, and was succeeded by Edson Fessenden. Mr. Holcomb also resigned, and declining a re-election, was succeeded by J. Augustus Wright, March 14th. W. H. Hill was secretary, April, '57-July, '65, and James F. Burns, July, '65-June, '75. The company decided to conduct its business on the mutual principle and to treat the stock as a guaranty capital, entitled only to six per cent. a year, the legal rate of interest.

The early progress of the company was slow. In June, 1861, when the experiment of insuring only the strictly temperate was abandoned, its gross assets amounted to \$262,088.40. For the previous year premiums reached \$48,704.02 and income from investments, \$10,749.81. With change of method and the stimulus given to all activities by the Civil War, came rapid growth. Imitating a popular feature of the time, it gave up the wholly cash requirement, accepting part payment in notes.

The panic of 1873, followed by six years of sore depression, brought ruin upon many insurance companies both life and fire. All interests suffered. Even the savings banks of New England and of our older states, though placed by law under severe restraint and strict supervision, sustained heavy losses from shrinkage of securities, and the strongest were forced to reduce the rate of dividend from six to four per cent. a year. Some failed. Some pulled through by scaling their liabilities. As prices soared skyward during the outpour of inconvertible paper currency giving to business of all kinds a delusive appearance of prosperity, so they sank again toward the cold bed-rock of reality, when the financial drunk came slowly to an end.

The Phoenix suffered not only from general causes, but from the payment of excessive dividends, or return premiums to policy-holders. For a long period these were fixed at thirty-three per cent. on the temperance and fifty per cent. on the other tables. Managers sought to win business by giving patrons larger returns than their rivals. At times the strife became fairly frenzied. When pushed to extremes the policy took away the main resource for making good the general shrinkage of prices that fell upon all interests, and often from unexpected quarters.

For the above reasons the situation of the Phoenix in 1875 was serious, but not alarming. The statement of its condition on December 31, 1874, showed admitted assets of \$10,011,876, including \$16,000 paid in on capital account and a surplus as regards policy-holders of \$339,866.

Secretary Burns was the real executive officer. His methods were not approved by Aaron C. Goodman, with one exception the largest stockholder, and long a non-resident director. In early manhood Mr. Goodman was a bookseller and book-publisher in Hartford. Later he opened a paper warehouse in New York city and carried on a large and lucrative business. In 1873 he returned to Hartford. He now became a constant attendant at the meetings of directors, where his free criticisms provoked the ire of the secretary and occasionally ruffled the temper of the president.

A plan was arranged to displace the obnoxious director at the annual meeting in June, 1875. The proposed victim got wind of the plot and resolved not to be sacrificed in that way. He offered his shares to several prominent directors, and failing to get a bid, took the opposite course and so added to his interests as to secure practical control. His purchases included a block of three hundred and ninety-seven shares from Mr. Fessenden. At the election a few days later Mr. Goodman was chosen president; Jonathan B. Bunce, vice-president; and John M. Holcombe secretary. Heretofore the vice-president had held an honorary title. He was now made a member of the working staff.

Under the rigid scrutiny of the new officers, an alleged surplus of over \$300,000 before the end of December was changed into a deficit of \$79,000—a change very painful to the incoming management, and due not to current shrinkages, but to the correction of past errors. To fill the gap the directors required payment of the stock notes, amounting to \$84,000.

The affairs of the company were found to be in great confusion. Many months of arduous labor passed before its exact condition was reached. Not only had a great deal of worthless stuff been carried to the credit of assets, but still larger sums on sundry classes of policies had been dropped from the liabilities, though the company was responsible for the claims. As the truth was reached the books were corrected. Troubles came to light one by one, and hence were more easily borne.

The statement of December 31, 1875, represented the financial condition as then understood. Many policy liabilities were afterwards discovered and restored. New by-laws were framed and adopted. A department for insuring at lower rates on the stock plan was put in operation. Real estate taken by foreclosure was gradually sold, and for the most part without loss. After the annual statement of December, 1878, the chief drain on resources came from the restoration of policies that under the previous management had dropped from acknowledged liabilities. From these causes, several years elapsed before the management could claim with confidence a solid surplus.

When the crisis was safely passed, it became manifest that the company had fallen into a chronic habit of attending to repairs instead of new construction. While the volume of assets from 1875 to 1888 remained nearly stationary, the surplus grew from \$4,679 to \$1,318,537, and the insurance in force fell from over sixty-nine to less than twenty-five millions.

President Goodman, who owned one thousand and two shares, and thus a controlling interest, desired to sell on account of ill-health. Early in 1889, William Barnes, ex-superintendent of the insurance department of New York, after various preliminary negotiations, introduced John J. McFarlane, of Philadelphia, to Mr. Goodman. Mr. McFarlane offered \$500 a share for Mr. Goodman's holdings. He claimed that as he had decided to go into life insurance on a larger scale, he could afford to spend this sum for a well-established plant, as the outlay would be much less than the cost of reaching equal strength from fresh beginnings. He brought letters of indorsement from reputable people. His backers described him as an ex-

member of the State Senate of Pennsylvania, an elder in the Presbyterian Church, a Prohibitionist; in short, as variously virtuous. At the above figures for a limited time he obtained an option on the entire block.

Inquiries on the part of persons interested in the company and in the city satisfied them that the proposed purchaser was not a man to whom could safely be committed the custody of many millions of trust funds. As the discussion proceeded the conviction deepened that a large body of assets controlled by a handful of stock that bore to the mass a ratio of less than one per cent., like a tall pyramid inverted, must be in constant danger of fall. The accumulation of cash in bank, amounting to three-fourths of a million, was also a sore temptation to schemers. If to-day one assailant with honeyed words, but evil designs, was detected and repulsed, another as bad or worse was likely to appear on the skirmish line to-morrow or next month.

Both stock and policy-holders united to eliminate the peril. Mr. Goodman, the largest owner, expressed a willingness to make concessions from the estimate he placed on the value of his shares. Others took similar ground. An appeal was made to the legislature, then in session, to furnish, by charter amendments, the machinery for extinguishing the stock. That body promptly passed an act providing for the retirement of the capital and the transfer of ownership and control to the insured when duly accepted by the parties in interest.

A meeting of policy-holders to be held on or before December 3, 1889, was empowered to purchase all the capital stock of the company at a price not exceeding \$250 per share, with interest at the rate of five per cent. from July 1st, to be paid out of the surplus, provided such price be first approved by the insurance commissioner as not impairing the reserves, and that no less than a majority be purchased at any price. Transfers were to be made to the commissioner and his successors in office, in trust for the insured, till all the stock had been bought, when the certificates were to be surrendered to the company for cancellation and retirement. The existing directors were to hold office and fill vacancies till the meeting in December. Meanwhile on the stock standing in his name, as trustee, the commissioner was authorized to vote for directors. Great power and a wide discretion were lodged in his hands.

These proceedings put an end to the schemes of operators like Mr. McFarlane. On the 7th of May Mr. Goodman gave to Charles E. Gross, his assignees and appointees, an option for ten days on one thousand and two shares for \$250,000, one-half of the sum offered by the Philadelphian. The offer was accepted on the 11th, and the stock was delivered and paid for July 3d, a syndicate of directors and appointees of Mr. Gross assuming the load. On the same day Mr. Goodman resigned as president and director. The block was transferred to John C. Parsons to hold in trust and transfer to the company, provided the policy-holders voted to buy at the price paid. At the meeting in December they so voted by a large majority. All the other shares except ten which remained out for a year or two longer were taken at the same price. Since then the company has been mutual in methods and in interests as in name.

The meeting also chose a board of fifteen directors, who completed the reorganization by electing J. B. Bunce, president; John M. Holcombe, vice-president, and Charles H. Lawrence, secretary.

The commissioner demanded repayment of dividends in excess of six per cent., for the years 1882 and 1889, inclusive, and all the old directors, except Mr. Goodman, complied. He refused and was sued, but the suit was at length withdrawn.

In 1890 John J. McFarlane, having played leading part in wrecking the American Life Insurance Company and the Bank of America, both of Philadelphia, fled the

country, while three confederates in crime went to prison. In the spring of 1893 he returned from Brazil, surrendered to the authorities and was sentenced for four years, preferring, as he said, "punishment in jail to the endless misery of a wanderer in exile."

Renewing its youth the Phoenix Life, under the new *regime*, has advanced steadily in every element of strength. The number of policies written increased from 1,224 in 1889, to 5,193 in 1896, and premium receipts from \$650,777 to \$1,430,228. Although the cost of securing new business makes its rapid increase a heavy drain on resources, the net surplus grew meantime from \$534,000 to \$571,552, where we might reasonably have looked for retrogression. Belonging now wholly to the policy-holders, the company has taken a secure place among the solid institutions of the state and country. Its gross assets January 1, 1897, were \$10,658,042.71.

In 1896-7 the company built a home-office on the south side of Pearl street, near Main, seventy by one hundred and twenty feet, six stories high in front and three in the rear, exclusive of the basement. The floors and roof are built after the new Columbian system, an American adaptation of the more clumsy French concrete method, combining, as modified, lightness, strength and safety. It is fire-proof throughout. It has a high-speed electric elevator, gas and electric lights, direct and indirect steam heat, sanitary plumbing, with abundant ventilation and light for all the rooms. The front is in the Italian renaissance style.

For its own use the company occupies the entire second floor with the rear of the third. On the first floor, flanking the entrance on each side, are two large rooms with fire-proof vaults, suitable for banks. The rest of the building will be rented for offices. Around the elevator is a flight of iron stairs with platforms and treads of Italian marble. The rooms occupied by the company are furnished in East India mahogany, and the rest of the interior in oak. There are nine fire and burglar-proof vaults constructed with the most approved devices.

Jonathan B. Bunce, born in Hartford, April 4, 1832, passed from the high school of his native town to the Sheffield Scientific School of New Haven, whence after a course of eighteen months, he moved to New York city as a member of the firm of Dibble & Bunce, commission merchants. In 1860 he was recalled to Hartford by the death of his father, and succeeded him in the wool business, entering into partnership with the surviving member of the firm, Drayton Hillyer. At the outbreak of the war Gov. Buckingham, in searching for a suitable person to reorganize the department, tendered to Mr. Bunce the position of quartermaster-general. He accepted, and for six months devoted himself untiringly to the work, equipping for the field nine infantry regiments, a battalion of cavalry and a battery of artillery. Feeling that he could no longer in justice to himself withhold attention from his own business which was expanding rapidly under the stimulus of war expenditures, he then resigned. The partnership of Hillyer and Bunce continued for fifteen years. At its expiration in 1875 he entered the Phoenix Mutual as vice-president, and at the reorganization in 1889 became president. He is identified with many of the financial and humane institutions of the city.

Mr. Holcombe was born in Hartford, June 8, 1848, graduated at the Public High School in 1865, and at Yale University in 1869. While studying law he was turned aside by fondness for mathematics into the actuarial department of the Connecticut Mutual Life, and in October, 1871, was appointed actuary of the insurance department of Connecticut. Of the Phoenix he became assistant secretary in 1874, secretary in 1875, and vice-president in 1889.

As a citizen and as a member of both branches of the municipal government

Mr. Holcombe has labored indefatigably to improve local sanitary conditions, among other things securing the passage of an ordinance establishing the Board of Health, on which he is now serving as commissioner a third term. He is chairman of the committee which laid out the intercepting sewer for draining the Park river valley.

Charles H. Lawrence, secretary, was born in New York city, Aug. 23, 1845. Passing from the public schools to the then Free Academy, he came to Hartford in 1866 as shipping clerk for Smith, Bourn & Co. He entered the Phoenix Life, January 1, 1871, and was chief clerk of the investment department at the time of reorganization in June, 1889, when he was elected secretary. He has taken deep interest in municipal affairs, and in addition to other services was three months acting mayor.

CHAPTER LII.

INSURANCE IN CONNECTICUT—Continued.

THE CONTINENTAL LIFE INSURANCE COMPANY, HARTFORD.



CHARTERED in 1862 the Continental was organized in the spring of 1864, with a capital of \$150,000, divided into six thousand shares of \$25 each. In July, 1866, the capital was increased to \$300,000. Forty per cent. was paid in cash, and sixty per cent. was represented by stock notes. May 16, 1864, was elected the first board of directors, consisting of John S. Rice, Lucius J. Hendee, James L. Chapman, Samuel E. Elmore, Horace Cornwall, Buel Sedgwick and Ezra Hall. Three months later Allyn S. Stillman, H. K. W. Welch and Abner Church were added. The original seven met May 23d and elected John S. Rice, of Farmington, president, and Samuel E. Elmore, secretary.

It was a period prolific in the birth of life insurance companies. In New York, under a general statute, many sprang into being about this time. After struggles variously prolonged most of them passed away. Meanwhile intensity of competition enhanced expenses and diminished profits.

At the annual meeting in 1870 a plan to capture the management took form. Several of the old directors were displaced. James S. Parsons, as representative of the assailants, was elected vice-president, with the duties ordinarily assigned to the superintendent of agencies. Mr. Elmore succeeded Mr. Rice in the presidency. Francis D. Douglass, assistant secretary since July 1, 1869, was made secretary.

At the next annual meeting the intrusive element dropped out. Lucius J. Hendee, was elected vice-president, and the by-law attaching certain duties to the office was rescinded. May 1st Mr. Hendee retired, and John S. Rice was elected in his place, with the special assignment of examining all claims for losses.

At the annual meeting in March, 1873, the assault, partially successful in '70, but foiled in '71, carried the position. The new directors were: John C. Tracy, Edwin Bulkeley, George C. Johnson, Ansel Arnold, Thomas Ramsdell, John S. Wells, J. G. Martin, James S. Parsons, H. B. Freeman and Robert E. Beecher. One-half of the new board resided in the town of Windham. They elected James S. Parsons president, and Robert E. Beecher secretary.

January 1, 1873, the statement claimed assets of \$2,735,394 (of which \$1,330,315 were in premium notes), and a surplus over all liabilities of \$355,357.

In the statement for December 31, 1874, the capital is first reported as full-paid.

It was done thus. John C. Tracy, a director in the Continental, was also president of the Farmers' and Mechanics' Bank. For friends he did illegal acts which in the end brought heavy losses upon the bank and punishment upon himself. December 31st, a package of stock notes having a face value of \$180,000 was deposited in the bank, and a credit for the same amount entered on the pass-book of the Continental. January 19th the package was withdrawn, and the credit cancelled.

As more fully described in the history of the Charter Oak a special commission was appointed in 1877 to investigate the life companies of Connecticut. Judge Origen S. Seymour, chairman, examined the home affairs of the Continental, taking as a point of departure the annual statement to the commissioner, dated December 31, 1876. The return and the books of the company were found to correspond. Still, strange outcroppings perplexed the mind of the Judge and led him to probe deeper. At first the dance of ghostly figures without substance grievously bewildered him. Weeks of hard labor passed before the real situation took form in his mind.

After the revolution of 1873, the new management, to entrench itself more securely, bought with the funds of the company from hostile interests 4670 shares of its own stock at a cost of \$125,482.90, or \$5,482.90 more than all the cash paid into the treasury on capital account. The block stood December 31, 1876, in the name of John C. Tracy, trustee, by whom as trustee also the accompanying stock note of \$70,050 was signed. It is apparent that the money thus paid out and the note given to itself had no value whatever as security for creditors.

Various large sums were credited by President Tracy on the pass-book of the Continental which were nowhere to be found in the accounts of the bank. The first was an item of \$186,907.16, which represented to the extent of \$180,000 the stock-notes, including the one for \$700,050 virtually given through its trustee by the company to itself. From time to time the Continental had advanced \$133,534.90 to Sharps' Rifle Company. The vouchers were handed to Mr. Tracy, and he entered on the pass-book a credit for the same amount. His act was wholly illegitimate. Whether the property was worth more or less than the face of the vouchers would depend of course upon the outcome of the venture. The \$125,482.90 paid out for its own stock appeared in two items, one of \$20,966.40, credited on the pass-book, and the other in a certificate of special deposit for \$104,516.50. The latter went toward making up the sum reported as cash deposited in bank. There was still another credit of \$35,000 which represented not even the shadow of a shadow. Against this aggregate of \$480,924.90, but two offsets can be allowed; the notes for sixty per cent. on the 7330 shares in the hands of the public (\$109,950) and the equity in Sharps' Rifle Company.

United States bonds, par \$205,000, market value \$230,625, and Windham town bonds, \$35,000, were included in the same return among the assets owned by the company December 31st. It is true that December 27th the president of the Continental wrote to the bank requesting it to buy on account of the company \$200,000 United States bonds. From the 5th to the 10th of January inclusive the bank made the purchases on the general credit of the company, using its own funds for the purpose, holding the bonds as security with power of attorney to sell, and again disposed of them all between February 10th and March 2, 1877, repaying itself with the proceeds. Yet to keep up the show the insurance company as if in payment drew checks upon the unreal credits entered on the pass-book, but not on the bank ledger. The ownership of the Windham bonds seems if possible even more mythical. Mr. Tracy left the bank in February, 1877. In the adjustment that followed, the spectral assets, evoked from the realm of shadows by his aid, returned to the nothingness whence they seemed to spring.

The special commission submitted its report to the General Assembly January 15, 1878, but no adverse action was taken. Commissioner Stedman required the company to restore the money used in the purchase of its own shares. Thereupon the officers represented to certain stockholders that on account of the disturbance created by the special commission there was need of a temporary increase of assets. Supposing that the emergency would soon be passed, the parties appealed to gave their notes, with collaterals, for sums that amounted altogether to \$125,482.90. No interest was collected from the makers, and all dividends on the securities entrusted to the officers were paid over to the actual owners.

In the summer of 1887, a local firm of brokers, with which the president of the Continental had had extensive dealings, failed. Within a few days the affairs of the concern were published in detail. Among the securities hypothecated to the firm to reinforce speculative margins, and in several cases rehypothecated elsewhere, the parties, who had filled the gap of \$125,000, recognized some of their own stocks. Others had vanished. Stocks and bonds, once the property of the Continental, and supposed by the directors to be securely stored in the vaults of the company, turned up to their surprise in the same place.

Commissioner Fyler at once began an examination, taking as a basis the statement for December 31, 1886. By the 17th of November he had progressed so far as to feel called upon to issue an order, under the statute, forbidding the issue of new policies and the payment of dividends. After further progress he became satisfied that the impairment exceeded twenty-five per cent. of the assets, and on the 30th of November applied to Judge Carpenter, of the Supreme Court of Errors, for the annulment of the charter, and the appointment of a receiver. The application was resisted, and the case adjourned till December 23. At the second hearing, the petition was not opposed, and the Court appointed Lorrin A. Cook and John R. Buck receivers.

Under the scrutiny of the commissioner, the volume of admitted assets shrank from \$2,113,356.68 to \$1,235,680.97, including \$391,064 in premium notes. He placed the direct liabilities at \$2,070,045.25.

Before the second hearing the president had retired beyond the jurisdiction of the Court. The secretary was indicted for perjury, in swearing to a false return. It was claimed on his side that he had never made oath to the return, and that the certificate of the notary was false. Under a New York decision in a similar case, that "there must be proof of the oath taken, independent of the notary's certificate, signature, seal and jurat," the judge advised that the case be nolle.

THE CONNECTICUT GENERAL LIFE INSURANCE COMPANY.

The Connecticut General entered a field already crowded, not as a competitor of older institutions, but with the view of selecting at adequate rates, from risks which others rejected. Dr. Phelps, father of the Connecticut Mutual, was also the godfather of the Connecticut General, and proposed to further aid the infant enterprise with liberal slices from the excess lines of the parent company. The promoters reasoned, quite plausibly, that if fire rates could be so adjusted upon all classes of property as to be remunerative, there could be no inherent difficulty in graduating the cost of insurance for impaired lives also. It was soon found, however, that the infirmities buried in the human system were too deceptive and variable to respond to any determinate law of averages. Moreover, applicants who failed to pass the standard examinations, did not display expected alacrity in accepting the benefits of the new departure on the terms proposed. Each one's confidence in his own destiny is

so strong that he must either suffer from "malaria," or be clearly nearing the grave, before he will admit that his chances of longevity are less than those of his neighbor. Happily the error in the theory was soon shown by the perplexities encountered in attempts to apply it, and in two years the feature was abandoned, and the business of the company thenceforth confined to first-class risks.

It is worthy of note that the Universal and the American Popular Life Insurance Companies, organized about the same time on the same theory, persisted in adhering to the plan, and paid the penalty a few years later by dying bravely in the last ditch.

In view of the extra hazards and untried conditions to be met, the capital was placed by the charter at not less than \$500,000. Ten per cent. was required at the time of subscription, a second installment of 10 per cent. was called at the first meeting of directors, and a third, of 30 per cent. in cash, June 9, 1866. When the experiment of insuring impaired lives was given up, the need of a large capital to guarantee the performance of contracts also vanished. Hence, by permission of the Legislature, it was reduced in 1874 to \$250,000, the amount actually paid in. The reduction was effected by the cancellation of stock notes. In 1880 it was again cut down to \$150,000, by taking up two-fifths at par, the growing strength of the institution having rendered a larger guaranty needless. This was the first life insurance company in Connecticut of which the capital was wholly paid in cash.

The first board of eighteen directors, twelve from Hartford and six from other cities, was elected July 20, 1865. A week later John M. Niles was elected president; Edward W. Parsons, vice-president, and Thomas W. Russell, secretary. Mr. Niles held the place but a few weeks, having been succeeded by Mr. Parsons in September.

With others the Connecticut General suffered from the shrinkage of values that followed the panic of 1873. Loans made on real estate at inflated values defaulted, throwing upon its hands large blocks in several cities, notably in Washington, D. C. The distress to all interests was severest during the winter of 1876-7. The annual statement for December, 1876, showed an impairment of capital on a four per cent. basis of \$12,607.67, or, throwing out items not admitted by the commissioner, of \$18,265.41. Total assets then amounted to \$1,272,298. But the turning point had been reached. From that date onward the company has steadily gained in every element of strength, though compelled from time to time to charge off losses arising from the old transactions above referred to.

In May, 1876, Thomas W. Russell, an expert in life insurance, succeeded Mr. Parsons as president, and at the same time Frederick V. Hudson was elected secretary.

In 1872 the company began to issue policies on the tontine plan in a modified form for terms of ten and twenty years. In July, 1887, the scheme was abandoned in disgust, partly from conviction that the theory was injurious and misleading, and partly from the incessant complaints of the unfortunates who fell by the wayside. It seemed impossible to print conditions in type sufficiently conspicuous to attract the attention of the insured to the terms of the contract. On the other hand, those who have held out to the end have had no ground for fault-finding. The funds belonging to separate classes have been kept distinct, and have been charged only with their proportionate share of expenses. On long-term policies the company is paying fifty-nine per cent. of estimated results, and on short term, eighty-eight, as the latter are less affected by the continuous fall in rates of interest, which dropped fully one-third during the progress of the experiment. These results are from fifty to over one hundred per cent. better than results attained by some of the largest companies

in the country, which about the same time went into the scheme on a grand scale with promises as alluring as experts in the manufacture of advertising literature could produce.

May 22, 1894, President Russell reached the age of three-score years and ten. From the young men in the office, whose welfare he has studied with the solicitude of a father, came the suggestion that the company take some appropriate notice of the event. The idea was approved by the directors. At a complimentary dinner given on the 29th of June, officers, directors, employees and general agents, with a few invited guests, came together to express their regard for one who had served the institution continuously from its birth. Three others were present who had also been connected with it from the beginning: Doctor Melancthon Storrs, vice-president, toastmaster and medical examiner; Leverett Brainard, mayor of the city at the time, and a continuous director; and Walter H. Tilden, agent at Philadelphia, and an original stockholder.

Mr. Russell was born at Greenfield, Mass. From 1846 till 1852 he was a merchant at Mystic Bridge, Conn., and incidentally acted as local agent for the Charter Oak Life Insurance Company, which in the latter year, when he represented the town of Stonington in the General Assembly, persuaded him to move to Hartford and take a traveling agency. In 1857 he was elected vice-president. He resigned in 1864, while its sky was still unclouded, and after a year with the Connecticut Mutual, aided in launching the company to which he has devoted the energies of three-fifths of his business life. Since his accession to the presidency it has enjoyed not only uninterrupted, but in regard to solidity, conspicuous prosperity. Others have grown faster in accumulations, but few now surpass it in strength.

January 1, 1897, the company had gross assets amounting to \$2,944,747.97, with a net surplus of \$388,862.35 exclusive of its capital of \$150,000. Of the surplus, too, \$260,058 belongs to a special class of policies. There have been few changes in the official corps.

Frederick V. Hudson, secretary, was born in February, 1838, in Cincinnati, O., where, in 1867, he became local agent for the Penn Mutual, and the next year state agent for the Hartford Life and Annuity. After a short term he accepted the general agency of the Connecticut General in October, 1868, and was elected secretary in 1876.

Edward B. Peck, assistant secretary, was born in Galveston, Tex., January 31, 1840; was educated in the schools of St. Louis, Mo., taught several years, a part of the time as principal of one of the public schools of Bridgeport, Conn., engaged in mercantile business in Alabama, whence he moved to Hartford, where he was made cashier and accountant of the Connecticut General in May, 1868, and assistant secretary in May, 1882.

Robert Watkinson Huntington, actuary, was born in Norwich, Conn., November 9, 1866; graduated at the Hartford High School in 1885, at Yale University in 1889, and in November of the same year entered the office of the Connecticut General, of which he was appointed actuary June 29, 1893.

THE HARTFORD LIFE AND ANNUITY INSURANCE COMPANY.

This company was chartered in 1866 as the Hartford Accident Insurance Company, primarily to make insurance connected with loss of life or personal injury through accidents of every description, and with the privilege also of making ordinary insurance upon lives. August 14th, of the same year, the subscribers chose the following directors, viz.: Daniel F. Seymour, Jasper H. Bolton, Stiles D. Sperry, E. Thomas Lobdell, John A. Butler, Alvan P. Hyde, Chester Adams, John W. Danforth,

Elisha P. Smith, Jacob Knous, Hiram Bissell, Thomas J. Vail, Joshua R. Lord, John B. Russell and David A. Rood.

T. J. Vail was elected president; C. C. Kimball, vice-president; and September 10th, W. S. Manning, secretary. The capital was placed at \$300,000.

Little was then known about accident insurance, and the unprofitableness of the attempt soon became apparent. In 1867 the name was changed to the Hartford Life and Accident Insurance Company, and in 1868 the descriptive words were changed to the Hartford Life and Annuity.

For the first two years money was lost rapidly. Changes now occurred in both *personnel* and policy. The accident business was dropped. In May, 1868, Chester Adams consented to act as president *pro tem.* till a suitable person could be found. After much importunity C. C. Kimball took the position in January, 1869. With a keen sense of the needs of the situation he cut off excrescences, reformed old methods and soon put the concern on a money-making basis. James P. Taylor, later cashier and president of the Charter Oak Bank, served as secretary from May, 1867, till May, 1874.

With the improved outlook certain parties in the directory were seized by a sudden and singular desire to obtain control for the sake of the supposed honors and emoluments. No resistance was offered from within. On the contrary, a large block of stock was indirectly and kindly supplied to them at high prices. At the next annual election in May, 1870, Wareham Griswold was chosen president, and D. F. Seymour, who had been vice-president since February 8, 1869, became the active manager.

Affairs now took another turn. Expenses grew, and business became unprofitable. The book value of the shares fell from eighty-eight in the spring of 1870, to fifty-five within the next five years. Mr. Griswold died in 1876, and was succeeded by E. H. Crosby. Stephen Ball, who was elected assistant secretary October 28, 1867, and secretary May 12, 1874, saw that a change of method was imperative. Under his guidance new business was dropped, collections were made from the home office, and rigid economy was enforced. Meanwhile every proper claim was fully and promptly met. So great are the recuperative energies of life insurance that in a few years the technical solvency and general credit of the company were fully restored, the capital having been reduced meanwhile to \$250,000. It was now ready to re-enter the field aggressively.

In January, 1880, the company adopted a form of natural premium insurance combining low cost and security, devised by Henry P. Duclos, formerly of St. Albans, Vt. At the same time a contract was made with Duclos and his associate, A. T. Smith, to manage the agency department. The system requires policy-holders to pay only for the actual mortality among members as it occurs, in quarterly periods. Applicants for insurance pay a single admission fee, which varies according to the amount required, but not with the age of the person. For collecting and distributing the funds and all other expenses of management, a yearly charge of \$3.00 per \$1,000 of insurance is made, and the rate cannot be increased. The safety fund, which gives the system its name, is made up exclusively of contributions of \$10.00 per \$1,000, required of each member once only, and placed in the hands of the Security Company of Hartford as trustee for the policy-holders. In July, 1894, it reached the contract limit of one million of dollars. Till then semi-annually the entire net income from the fund was divided pro rata among the holders of certificates in force, who, five years before or earlier, contributed to it their full share, and the dividends thus accruing were applied to the reduction of subsequent dues and mortality-calls. Since

that date the contributions from new members are semi-annually added to the income from it, when the entire surplus thus accruing is distributed in like manner.

The principal, placed by a deed of trust beyond the control of the company, remains at an even million, as a guaranty that death claims shall always be met in full, even if the membership for any cause be so reduced that stipulated mortality-calls fail to produce enough to satisfy the claims.

By mathematical computation the rates are so fixed that the amount of insurance in force must fall below one million dollars to cause an insufficient membership. Should such contingency occur, the trustee is required, from the principal of the safety fund, to pay all outstanding policies in full, without waiting for death to mature the claims. Had the condition arisen in the early stages of the venture, and before accumulations were sufficient to meet all liabilities in full, the deed provided for the division of the fund pro rata among the holders of certificates in force. This was the first company in the country doing business on the assessment plan, where an ample fund was built up to protect the insured against adverse possibilities, liable to occur in the distant future.

Several modifications of the original plan have been adopted, but none which alter its essential character. Mr. Duclos died in March, 1885. Mr. Smith continued to manage the agency department till his resignation in September, 1896, when he was succeeded by W. B. Warner, who had been in the service of the company fourteen years, and assistant superintendent of agencies, ten.

Since 1880 the business of the company has been confined to the "safety fund plan."

Late presidents have been E. H. Crosby, May, 1876-1882; Frederick R. Foster, May, 1882-1889; H. A. Whitman, May, 1889-1893; R. B. Parker, since 1893.

January 1, 1897, assets were,	\$2,465,152.65
Liabilities,	1,893,922.34
Number of policy-holders,	44,297

Rienzi B. Parker, president, was born in South Coventry, Conn., February 15, 1838. Soon after leaving the High School in Ellington, he engaged in the manufacture of cotton goods, an industry in which his father had long experience. In 1873 he established the Ravine Mills Company, at Vernon, Conn., and is still its treasurer. A stockholder in the Hartford Life and Annuity from the first, he was elected president in May, 1893.

Stephen Ball, secretary, was born in 1839, in New Haven, Conn. He came to Hartford in 1867, from New Orleans, where he had been employed in the service of the government. In August of the same year he was made assistant secretary of this company, and in 1874, secretary. He was largely instrumental in rescuing the institution from its early dangers and in building it up afterwards.

W. A. Cowles, an employee of the company since May, 1872, was elected assistant secretary, May 13, 1874.

After plans prepared by Frederick R. Comstock, at the corner of Asylum and Ann streets, in 1897, the company will complete, mainly for its own use, a building of five stories, with a frontage of sixty-two and a depth of one hundred and two feet. The style is a modification of the Italian renaissance. The first story of the exterior has a base course five feet high, of granite with a hammered dress face, surmounted by Indiana limestone laid in courses. This is crowned by a continuous and highly-ornamented cornice of terra-cotta, slightly lighter in color than the limestone. The stories above are laid in buff-colored press-brick and cream-colored terra-cotta. The

entire superstructure is supported by steel columns and steel beams encased in solid walls of brick. On the level with Asylum street are two stores, with the printing department of the company in the rear, opening into Ann. The second and third floors are occupied wholly by offices of the company. Each has a fireproof vault, eight and one-half by eighteen feet. The fourth and fifth floors will be leased till the room is required by the owners. Hot water is used for heating, and electricity for light. Much attention has been given to ornamentation both on the exterior and interior.

CHAPTER LIII.

INSURANCE IN CONNECTICUT—Continued.

MISCELLANEOUS INSURANCE.



SIDE from marine, fire and life insurance, attempts have been made in Connecticut from time to time to extend the business to various other classes of risks. Several health companies were chartered about the middle of the century, and the reason of their failure is given in our account of the Connecticut Health. A little later the notion became suddenly prevalent that money could be made by insuring live stock. A few experiments proved the futility of the scheme. Somehow the cow or the ox that died belonged to the part of the herd that happened to be covered by the policy. The question of identity often arose to the bewilderment of agents, if not of owners. It was soon discovered, too, that less care was taken of horses when heavily insured. On our canals and in other pursuits where consumption was rapid, the records showed the exact ratio of loss so that managers took out policies only when sure of saving money by the operation.

Two institutions in Connecticut, each entering as a pioneer a field not previously trodden in America, have won eminent success.

THE TRAVELERS INSURANCE COMPANY.

In 1863, when passing through England, James G. Batterson, of Hartford, became interested in the subject of casualty insurance, and after examining the methods pursued there and on the Continent, was convinced that the system could be advantageously transplanted into the United States. On his return home the scheme was talked over with influential friends, but at first met with little encouragement or sympathy. However, the personal force of the projector, backed by arguments which grew in number and cogency as the discussion went on, began to win valuable converts, and the enterprise soon materialized in tangible form. Outside of the charmed circle skepticism still prevailed, but a nucleus had been formed and a charter was secured in June, 1863.

By the terms of the charter the capital was placed at not less than \$100,000, with the right to increase it at will to any sum not exceeding \$250,000. An installment of ten per cent. was required at the time of subscription, a second installment of like amount within sixty days after organization, and the remaining eighty within the same period in stock notes properly secured and payable at the call of the directors.

At first the business of the incorporation was limited to "the insuring of persons against the accidental loss of life or personal injury sustained while traveling by rail-

ways, steamers, or other modes of conveyance in the United States and other countries."

At the City Bank of Hartford, a book for subscriptions was opened by the commissioners, James G. Batterson, George M. Bartholomew, Gustavus F. Davis and William L. Collins, January 28, 1864, when two thousand shares of \$100 each were taken and the first installment paid. The first meeting of stockholders, held at the same place February 23, voted to issue the remaining fifty thousand dollars of capital stock, and elected the following directors: James G. Batterson, Ebenezer Roberts, W. H. D. Callender, Thomas Belknap, Jr., James L. Howard, Charles White, George W. Moore, Cornelius B. Erwin, Marshall Jewell, Hugh Harbison, G. F. Davis, George S. Gilman, and Jonathan B. Bunce. The next day the board elected James G. Batterson president. March 4th G. F. Davis was elected vice-president, and Rodney Dennis secretary.

Finding the powers first granted too narrow, the managers by an amendment to the charter one year later obtained authority "to make all and every insurance connected with accidental loss of life or personal injury sustained by accident of every description."

To the substantial nucleus of president and secretary were added in time several other young men who manifested capacity for the assimilation and mastery of complex details, and the gifts of all were put to a severe test in the early struggles of the company for existence. Severe labor, rigid economy, and especially quickness and accuracy in the interpretation of facts, carried the enterprise safely through the perils of infancy. Not a penny was wasted on superfluities. The first office, located on the second floor to save rent, was furnished with two chairs and a second-hand pine desk set on a cheap table. A carpet was an extravagance not to be thought of. For a while the officers did all the work alone, writing the letters, keeping the books, instructing agents in the mysteries of the craft, and running on errands for exercise. The first luxury to be introduced was an office-boy, who became assistant secretary.

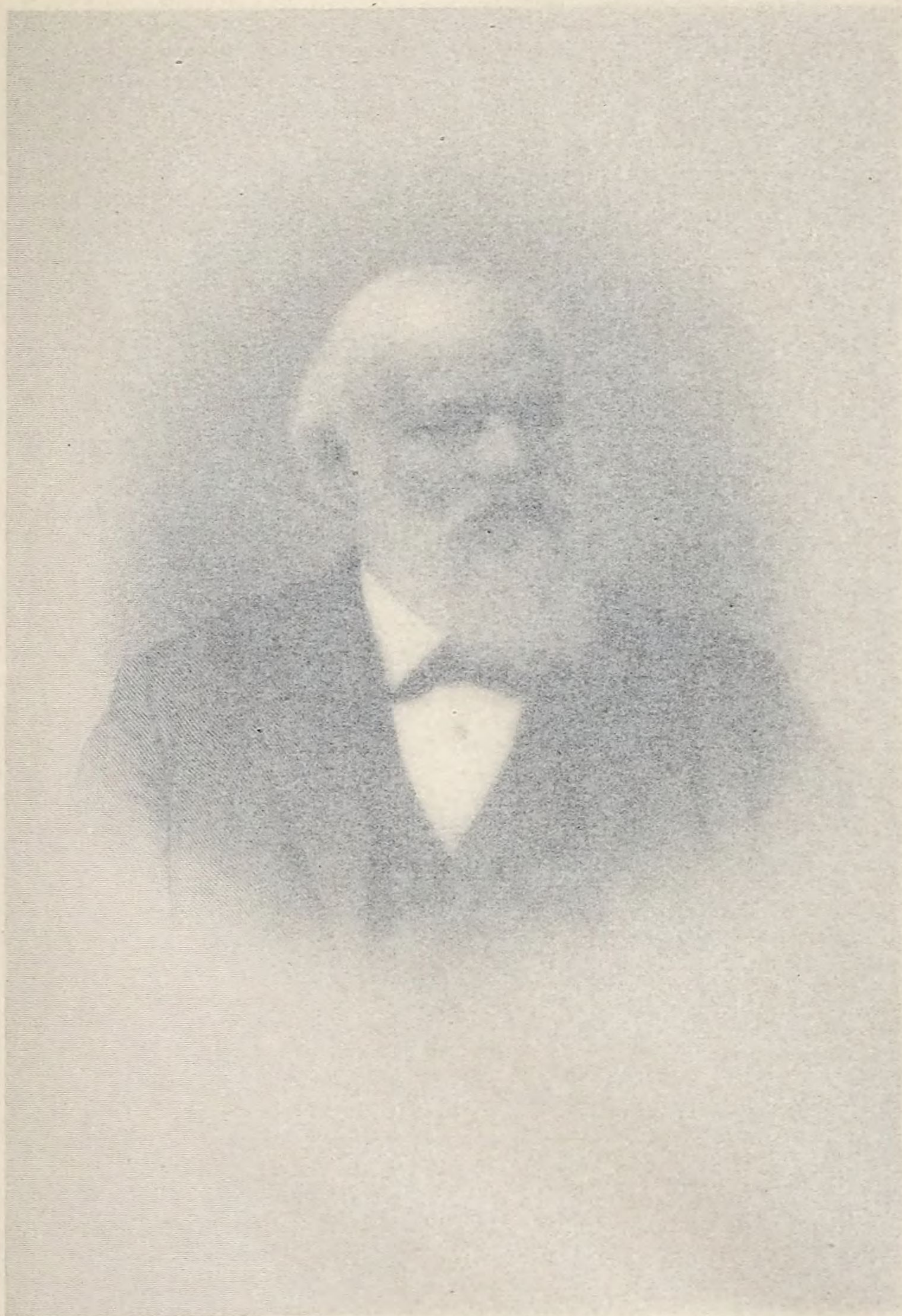
For eight generations children have read with unabated interest of the pilgrimage of Hooker and his flock through the trackless forest, from Massachusetts Bay to the banks of the Connecticut, with only the compass and north star for guides. On starting into the wilderness the Travelers had the benefit of neither compass nor star. At home no one had gone before to cut a bush or blaze a tree; while the conditions underlying the casualty business in England differed so widely from those in America that the scanty generalizations formulated in tables by the pattern-company proved treacherous and misleading. From the bottom stone in the foundation to the flagstaff on the tower, the officers constructed as they went, without aid from architectural designs or preformed plans, necessarily making many mistakes, and costly mistakes too—tearing down, changing, rebuilding, adding here and discarding there—till from a chaos of materials grew the present solid, stately, and enduring edifice, the despair of rivals, and the delight of friends.

No kind of business, and especially no branch of insurance, can be carried on with safety till its laws have been generalized from a wide range of experience. In the case of the Travelers, it was necessary to get the experience and to deduce the governing principles simultaneously. The process of adjustment demanded frequent and radical changes in classifications and rates, introducing confusion into methods, annoying and losing patrons, and exciting in faithful agents ebullitions of sore displeasure. The knife of the surgeon was in constant requisition. Meanwhile the executive officers did not sleep on beds of roses, at least till the small hours of the morning, for midnight often found them at headquarters, toiling over the solution of changeable problems or anxiously discussing what should be done next.

The palpable benefits of the system, the disbursement over a wide area of many small sums to injured persons who fortunately held policies in the Travelers, the gratuitous advertising given to the business by its relations to destructive railway accidents, though productive of a copious inflow of premiums, damaged the company at a certain stage of growth in two ways. Men engaged in dangerous pursuits insured in large numbers before the actual cost of the hazard had been determined, and, in fact, bought indemnity much too low. Perils from this source passed away as enlarged experience enabled the officers to correct the tables. The other danger came from the opposite quarter, and though serious enough in the thick of the fight, now seems almost ludicrous when viewed in connection with the mental conditions which preceded and followed in swift succession. Reversing the normal sequence of development, the age of skepticism yielded place to an age of faith, and before the doubting Thomases near home had ceased to hum, with a slight accent of derision, "what will the harvest be?" a swarm of casualty companies, organized in 1865 and 1866, rushed wildly into the field. With ample powers of destruction all lacked the art of construction, and after emulating the feats of the historic bull in the china shop, sank one by one into unremembered graves, and though mourners were many, the only monuments of the departed are the death records in the state insurance reports.

During the winter of 1864 five western states chartered over a dozen accident companies. Elsewhere others were striving with frenzied haste to reach fields that were supposed to glow with golden harvests. Nearly all began to issue railway accident tickets, bringing such confusion upon the business that obviously some form of combination could alone save strong and weak alike from common ruin. To pave the way, in May, 1865, the managers of the Travelers procured a Connecticut charter for the Railway Passengers Assurance Company for risks by travel alone, amended the following year to include general accidents and life insurance. The first meeting of presidents and representatives was held at Cincinnati, O., June 15, 1865. Others followed. At length, in 1866, seven companies united to prosecute the work for their joint benefit under a single management and a uniform system extending over the whole country. The instrument was the Railway Passengers Assurance Company, in which each as a corporation took stock and had representation in the directorate. It was organized on a capital of \$260,000, with \$44,800 more allowed for equipments taken or canceled, making a total of \$304,800, of which the Travelers held \$128,600. James G. Batterson was elected president, and headquarters were located in Hartford. By a singular fatality all the others found the losses from the residue of their business too great to be repaired by the dividends from their common offspring. A kind of cholera infantum carried off most of the lot in 1867. At the end of five years the Travelers was left sole survivor, residuary legatee and reinsurer of the rest. Having bought the shares of its late associates, the company in 1878 turned the Railway Passengers into the ticket department of its own office. In 1871 not an American rival was left, for the concerns which declined to enter the union had perished even more summarily.

As a rule the officers and employees of the Travelers have been singularly loyal to its interests. At the end of three decades there had been few removals from the official corps by death, and few withdrawals from the office force from any cause whatever. An element of discontent seceded in 1874, having carefully prepared for the event. The assistant secretary and the actuary went out to take the vice-presidency and the secretaryship respectively of the Hartford Accident Insurance Company, which was chartered in June, 1874, and soon began business on a capital of \$200,000.



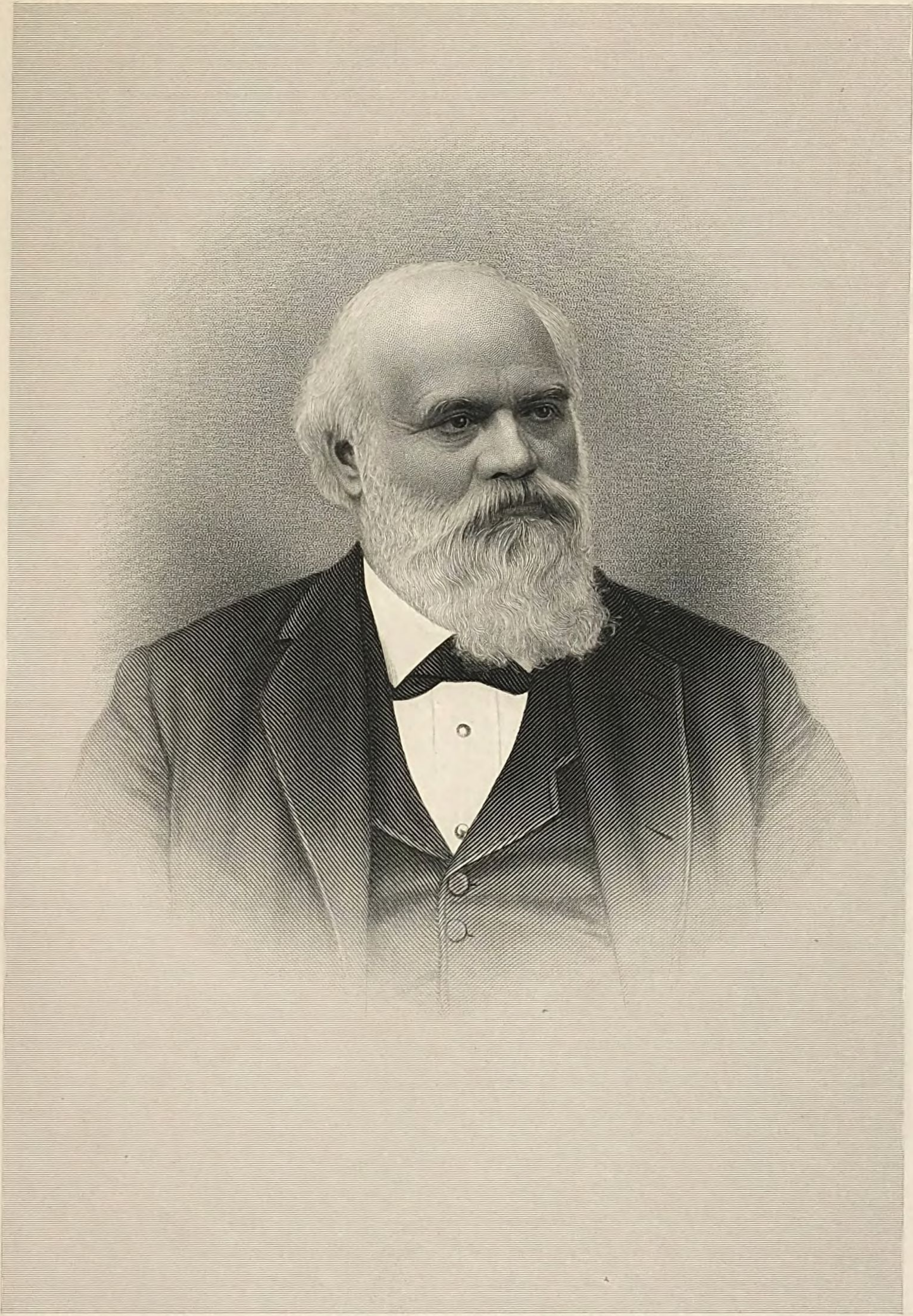
Masthead

J. H. Patterson

The palpable benefits of the system, the disturbance over a wide area of many small owners to injured persons who immediately held policies in the Travelers, the gratuitous advertising given to the business by its relations to destructive railway accidents, though productive of a copious inflow of premiums, damaged the company at a certain stage of growth in two ways. Men engaged in dangerous pursuits insured in large numbers before the actual cost of the hazard had been determined, and, in fact, bought substantially much too low. Perils from this source passed away as enlarged experience enabled the officers to correct the tables. The other danger came from the opposite quarter, and though serious enough in the thick of the fight, now seems almost ludicrous when viewed in connection with the mental conditions which preceded and followed its swift succession. Reversing the normal sequence of development, the age of skepticism yielded place to an age of faith, and before the jangling "Phrygian" ever came had ceased to hum, with a slight accent of derision, "what will the harvest be?" a swarm of casualty companies, organized in 1865 and 1866, rushed forth to the field. With ample powers of destruction all lacked the art of construction, and after contesting the feats of the historic bull in the china shop, sunk out by the hundreds in numbered graves, and though mourners were many, the only monument of the departed are the death records in the state insurance reports.

During the winter of 1864 five western states chartered over a dozen accident companies. Everywhere others were striving with frenzied haste to reach fields that were supposed to glow with golden harvests. Nearly all began to issue railway accident tickets, deluging such confusion upon the business that obviously some form of combination could alone save strong and weak alike from common ruin. To pave the way, in May, 1865, the managers of the Travelers procured a Connecticut charter for the Railway Passengers Assurance Company for risks by travel alone, amended the following year to include general accidents and life insurance. The first meeting of presidents and representatives was held at Cincinnati, O., June 15, 1865. Others followed. At length, in 1866, seven companies united to prosecute the work for their joint benefit under a single management and a uniform system extending over the whole country. The instrument was the Railway Passengers Assurance Company, in which each as a corporation took stock and had representation in the directorate. It was organized on a capital of \$260,000, with \$44,800 more allowed for equipments taken or mortgaged, making a total of \$304,800, of which the Travelers held \$125,000. James O. Patterson was elected president, and headquarters were located in Hartford. By a singular fatality all the others found the losses from the residue of their business too great to be repaired by the dividends from their common offspring. A kind of cholera infantum carried off most of the lot in 1867. At the end of five years the Travelers was left sole survivor, residuary legatee and reinsurer of the rest. Having bought the shares of its late associates, the company in 1878 turned the Railway Passengers into the ticket department of its own office. In 1871 not an American rival was left, for the concerns which declined to enter the union had perished even more disastrously.

As a rule the officers and employees of the Travelers have been singularly loyal to its interests. At the end of three decades there had been few removals from the official corps by death and few withdrawals from the office force from any cause whatever. An element of discontent seceded in 1874, having carefully prepared for the event. The assistant secretary and the actuary went out to take the vice-presidency and the secretaryship respectively of the Hartford Accident Insurance Company, which was chartered in June, 1874, and soon began business on a capital of \$200,000.



Massachusetts Publishing Co. Everett, Mass.

A. H. Patterson

Richard D. Hubbard, afterwards governor, was induced to take the presidency. A noted humorist, in a speech industriously circulated, procured for the new concern no small amount of gratuitous advertising. Yet in two short years the fledgeling was dead and buried with every dollar sunk. Luckily the jokes were let loose before the first course of the barmecide feast.

October 25, 1865, the directors voted to introduce and prosecute the life department of insurance. The business was conducted on the purely stock plan and was pushed as fast as due regard to the requirements of a legal reserve would permit. Although the loss ratio was exceptionally small, the rates charged were so low and the business grew so rapidly that not until 1873 did the balance sheet of the life department show a technical profit. For a number of years so great was the popularity of its life policies that the company was forced to reject many first-class risks in order to avoid swelling the deficit to figures that to the uninformed might be made to appear alarming. Yet from the start the prosperity of the department far exceeded estimated results as embodied in tables of mortality. In the early stages the Travelers skillfully used the profits of the Accident to promote and protect the growth of the life department. Behind both was the security afforded by a sound capital.

At the first meeting the stockholders voted to increase the capital from \$200,000 to \$250,000. March 19, 1864, 50 per cent. of the subscriptions, inclusive of previous payments, was called in cash. In June, 1864, by an amendment to the charter, an increase to an amount not exceeding \$1,000,000, was authorized. The following October the directors voted to increase it to an amount not exceeding \$400,000. December 4, 1865, the board declared from surplus earnings, a dividend of 25 per cent., payable in the stock of the company at par. For the benefit of owners, unadjusted fractional shares were sold at auction at the Merchants' Exchange, and brought $157\frac{1}{2} @ \frac{3}{4}$. Meanwhile, the balance of the stock notes given for subscriptions had been paid in cash in convenient installments. The capital remained at \$500,000 from December, 1865, till January 1, 1875, when \$100,000 was added by a dividend from surplus. Similarly it was raised from \$600,000 to \$1,000,000, April 1, 1892.

Having outgrown rented rooms, the Travelers purchased, in 1872, the historic mansion at the northeast corner of Prospect and Grove streets, built in 1820 by Henry L. Ellsworth, first commissioner of patents, and occupied among others, by Oliver Wolcott, secretary of the United States Treasury under Washington, governor of Connecticut, etc.; Professor Charles Davies; Roswell C. Smith, manufacturer of school-books; Isaac Toucey, governor, secretary of the navy, etc. In 1891 the company added a third story to the original building, a new wing on the northwest corner, and, in the rear, running parallel to Grove street, a new wing one hundred by twenty-five feet, three stories high. Four fire-proof vaults were added to the five already in use. Granite steps, surmounted by a portico of granite, appropriately symbolize the solidity of the institution to which they lead.

A very great proportion of the losses in the accident department of the Travelers come from the ordinary casualties daily occurring all over the country, which attract little attention beyond a limited circle; the large sums which the company is often required to pay to the injured and to the heirs of the killed after notable disasters, making but a small fraction of its disbursements. Still, death claims alone amounted to \$32,000 from the railway accident at Angola, January, 1868; to \$43,000, at Carr's Rock, April, 1868; to \$20,000, at New Hamburg, February, 1871; to \$13,000, steamer "Metis," September, 1872; to \$52,000, at Ashtabula, January, 1877; to \$15,000, at Chatsworth, Ill., August, 1887.

At the time of the great conflagration, one hundred and eighty-one Chicago firemen held policies in the Travelers, and not one was injured, though over \$20,000 had previously been paid there on this single class of risks.

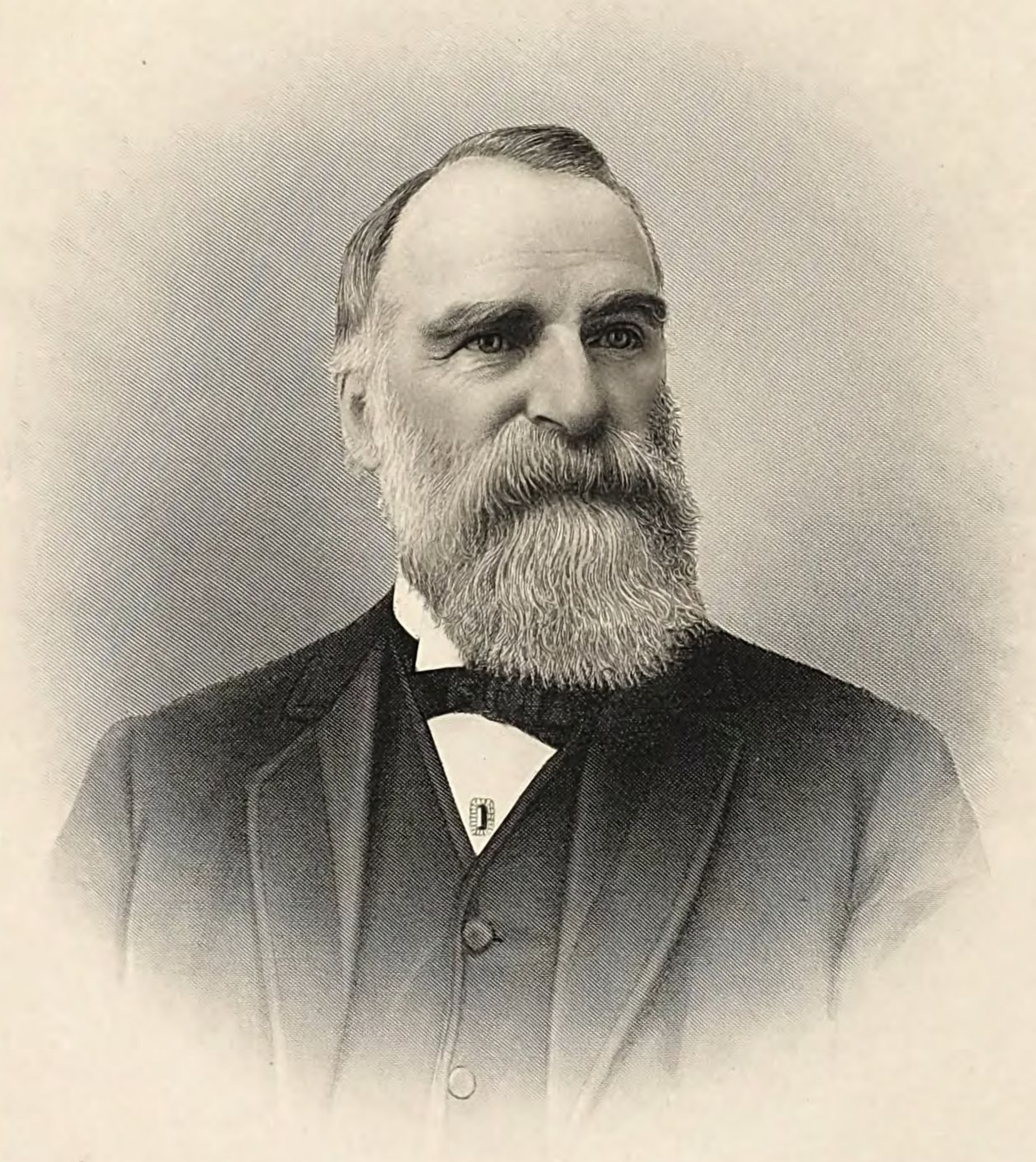
The *Travelers Record*, established in 1865, and issued monthly from the home office, by giving wide currency to facts and arguments showing the benefits of casualty insurance, has aided materially in enlightening the public, and thus extending the business. Edwin G. Barrows, first editor, was succeeded at his death, in 1875, by William M. Frost. Forrest Morgan followed in November, 1882. Mr. Morgan retired in March, 1884, and was succeeded by George William Ellis, a son of the secretary, and a recent graduate of Trinity College. Under the editorship of Mr. Morgan the company, in 1880, issued, as a souvenir, in five volumes, the collected writings of Walter Houghton.

Why the Travelers prospered while all rivals, save two or three late entries, have perished? Many minor reasons might be given, but they all run back to a common source—differences of management. The company was not started as an asylum for failures in the struggle for existence, but from its inception has been guided by men of good capacity, with definite and inflexible aims.

It can be said of James Goodwin Batterson, the president, that he has done much on many different lines, and has excelled in every field of effort. Only a person of extraordinary strength, physical and mental, could so break through the limitations that defy the ambition and hinder the success of all save a favored few. He was born in Newfield, Conn., February 23, 1823, spent his boyhood in New Preston, attended college in the academy at Warren, served an apprenticeship in a printing-office in Albany, N. Y.; returning home, studied law with Judge Origen S. Seymour, and then entered the marble works of his father in Litchfield. Five years later, the headquarters of the house were moved to Hartford. From making monuments the occupations of Mr. Batterson soon extended to the construction of buildings, at first at home, and then over a rapidly broadening area. Among the structures thus erected may be mentioned, in Hartford, the marble building of the Phoenix National Bank, the granite and marble works of the home-office of the Connecticut Mutual Life, the State Capitol; in New York city, the Worth monument, built in 1857, the stone and marble work of the Mutual Life, of the Equitable Life, of the Manhattan and other banks, of the Waldorf and Imperial Hotels, of the Vanderbilt houses, both there and at Newport; in Providence, of the City Hall; in Washington, of the new congressional library, etc. His marble works in New York city, established about 1860, in normal times give employment to five hundred hands. His granite quarries in Winsted, Conn., grade among the first in the country. Mr. Batterson was the first person in the United States to use machinery for polishing granite. The upbuilding of the Travelers has been another integral part of his varied career.

With so many practical affairs continually pressing upon him, Mr. Batterson has somehow found time to become a finished scholar, writer and speaker. His studies embrace Greek, Latin, the modern languages, Egyptology, political economy, science, philosophy, sociology and general literature, and he is proficient in all. He is also a connoisseur in art, and the owner of a large and choice collection of paintings.

Rodney Dennis, secretary from the beginning till March, 1896, was born at Topsfield, Mass., January 14, 1826, came to Hartford when sixteen years old, and, having served an apprenticeship in the grocery trade, established the house of Dennis & Ives at the age of twenty-one. A few years later his partner fell sick and never returned to work, while he was disabled for months by a serious accident. He now sold his interest, and going to Augusta, Ga., entered the employ of the historic firm



Rodney Dennis.

of Hand, Williams & Wilcox. After two years there and two in Albany he returned to Hartford in 1855, and was connected with the Phoenix Bank till he took the secretaryship of the Travelers in 1864. At first he attended to all the details of the business without assistance of any kind, toiling till late into the night, and keeping up the habit with few relaxations for many years. There was a constant struggle between physical endurance and consecration to work. Other employees caught his spirit and followed his example. Thus largely was success won.

A man of public spirit and great heart Mr. Dennis has opened his purse with notable freedom to aid a great variety of enterprises that held out a promise of promoting the welfare of the city, and to charities, organized and private, has given unstintingly of money, time and effort.

Looking to both sides the company has always dealt fairly and justly in settling with claimants. By holding old and attracting new patrons the policy has been fruitful in benefits.

George Ellis, secretary, was born in Hartford September 17, 1843, educated as a civil engineer at the Rensselaer Polytechnic, Troy, and entered the navy in November, 1861, as an officer of the engineer corps, remaining till 1868, when he resigned to enter upon the practice of his profession in connection with railway construction in Minnesota. In 1871 he removed to New York city to act as professional consulting engineer in railway enterprises in which his friends were engaged. He became actuary of the Travelers in June, 1874, and was elected secretary January 27, 1897.

John E. Morris, assistant secretary, was born in Springfield, Mass., November 30, 1843, came to Hartford in the spring of 1860, was connected with the Charter Oak Bank till September 20, 1862, when he enlisted in Company B, Twenty-second regiment Connecticut Volunteers, and remained in service till the expiration of the term of enlistment, July 7, 1863. He was the first clerk employed by the Travelers, having taken his place at the head of the column July 6, 1864. In May, 1874, he was elected assistant secretary.

Edward V. Preston, superintendent of agencies, was born in Willington, Conn., June 1, 1837, moved to Hartford in 1850, and followed mercantile pursuits till the outbreak of the war. In July, 1861, he was appointed quartermaster of the Fifth Connecticut, with the rank of first lieutenant. After various services he was commissioned by the president, February 19, 1863, as additional paymaster United States Volunteers, with the rank of major, and so continued till honorably discharged July 31, 1865. He at once entered the Travelers, and, after working two years as special agent, was appointed superintendent of agencies—a position which he has since held continuously.

John B. Lewis, M. D., surgeon and adjuster, was born in Suffolk county, N. Y., March 10, 1832; graduated on his twenty-first birthday from the University Medical College of New York city; settled at Vernon, Conn.; was commissioned as surgeon of the Fifth Connecticut, July 3, 1861; in the spring of 1862 was commissioned as brigade surgeon United States Volunteers, and was soon after made medical director of Shield's division; and from 1863 to '65 was in charge of the United States general hospital at Cumberland, Md. He remained till after the close of the war, having been present in thirteen battles and skirmishes, including Antietam.

Since 1869 he has devoted his time and talents to the medical department of the Travelers, writing meanwhile numerous papers on historical, medical and medico-legal subjects. His most elaborate work is a large volume prepared under the joint authorship of himself and Dr. C. C. Bombaugh, of Baltimore, describing the many plots and stratagems for defrauding life insurance companies and the manner of their detection.

Sylvester C. Dunham, counsel, was born in Mansfield, Conn., April 24, 1846; was educated at the State Normal School, New Britain, Conn., and at Mount Union College, Ohio; studied law with Charles E. Mitchell, of New Britain; and on admission to the bar moved to Hartford in 1871, where he was engaged in general practice for twelve years. In 1885 the interests of the Travelers Insurance Company in Colorado irrigation enterprises became involved in litigation through the operations of The Colorado Loan and Trust Company. Accounting proceedings were commenced in the United States Circuit Court by which it was sought to recover a judgment against the Travelers for more than \$1,000,000. Mr. Dunham was employed to devote his entire attention to this litigation, for which purpose he visited Colorado eighteen times. The litigation continued seven years and resulted in the recovery by the Travelers, and companies associated with it, of absolute title to some seventy thousand acres of land and the canals built to supply it with water, and a judgment in favor of the Travelers and against the plaintiffs for about \$94,000. Mr. Dunham has since had the general oversight of the properties so acquired, which are held by five Colorado land and canal companies of which he is the secretary and treasurer, the Travelers being the principal stockholder. He is also the general counsel of the Travelers, having charge of its legal affairs at the home office, and is a member of the board of directors.

January 1, 1897, the total assets of the Travelers amounted to \$20,896,684.63, with a surplus to policy-holders of \$2,976,424.36, of which \$1,000,000 is in capital stock.

THE HARTFORD STEAM BOILER INSPECTION AND INSURANCE COMPANY.

As remarked already two attempts in Hartford to introduce novel and untried forms of insurance have proved notably successful. In both cases the result, made more striking by the failure of imitators and short-lived rivals, is clearly due to intelligence and skillfulness of management.

In the mind of the projectors the conception of the above company was several years in taking form. At the time water was still largely used to drive machinery in manufacturing villages, but in towns steam, from necessity, was taking its place. Change to the new motive power was hastened by the inevitable concentration of skilled labor in cities. But the transfer was attended by great destruction of life and property. Conspicuous among casualties was the almost daily record in newspapers of steam-boiler explosions. Engine makers and users had not learned how to handle with safety the mighty agent. In not a few instances criminal carelessness came to the help of ignorance in inviting disaster.

There was no legal and little moral restraint to hold in check the recklessness. The notion prevailed that a certain waste of life and property in the use of steam was unavoidable. Attention, too, was diverted from responsible agents by the habit of speaking of disastrous explosions as the "act of God," or by otherwise hiding the human element under similar euphemistic expressions.

In the year 1857 a coterie of young men in Hartford, drawn together by congenial aims, organized the "Polytechnic Club," with the view primarily of investigating and discussing questions of science in relation to practical utilities. Among the members were Elisha K. Root, who succeeded Colonel Colt in the presidency of the armory, Francis A. Pratt, Amos W. Whitney, E. M. Reed, Professor C. B. Richards, of Yale; Charles F. Howard, Joseph Blanchard, J. M. Allen and others. Several members of this earnest but unpretentious club have since won international fame.

As a power coming more and more into use, but then under very imperfect con-

trol, steam became a favorite topic in the club. The results of foreign study and experiment were eagerly appropriated. Members discussed the causes of boiler explosions and means of prevention. It became known that the Manchester Steam Users' Association had already been organized in England with the view of preventing such accidents by periodical inspection. Under the system as started there the manufacturer paid a certain sum annually for examination, receiving in return either a certificate of the safe condition of his boiler or a report condemning it, but the certificate, like those in some places since issued by direct appointees of the state, involved no pecuniary obligation whatever, and if disaster occurred, the paper, while relieving the holder from the charge of carelessness, entitled him to no indemnity.

Although not one of the members of the Polytechnic Club was connected with insurance, the body unconsciously drew inspiration from the local predominance of the interest, which was then making Hartford famous as the home of skilled underwriters. In the course of the debates on the subject the attention of members was attracted to the feasibility of combining a guaranty with the inspection, thus giving both parties to the contract a pecuniary interest in the safety of the boiler. So far as known, the conception had not at that time materialized elsewhere. Although distinctly evolved in the club, the seminal idea waited several years for further development on account of the intervention of the Civil War.

A charter was procured in June, 1866, incorporating The Hartford Steam Boiler Inspection and Insurance Company, "for inspecting steam boilers, and for insuring against loss or damage to property arising from explosions or other accident in the use of steam boilers." The capital stock was to be not less than two hundred thousand nor more than one million of dollars, of which ten per cent. was required in cash at the time of subscription, and ten per cent. more within sixty days after organization.

August 31, 1866, the commissioners met and decided to open books on the 10th of September at the office of the Connecticut River Banking Company for subscriptions to the capital, which they fixed at five hundred thousand dollars. The shares having all been taken, the stockholders met, October 6th, and elected the following board of directors: Henry Kellogg, Richard W. H. Jarvis, Frank W. Cheney, John A. Butler, Charles M. Reach, Jonathan B. Bunce, Daniel Phillips, George M. Bartholomew, James G. Batterson, Marshall Jewell, Edward M. Reed, all of Hartford; George Crompton, Worcester; Daniel L. Harris, Springfield; Earl P. Mason, Providence; George Ripley, Lowell; F. Ratchford Starr, Philadelphia; Edwin D. Morgan, New York.

There was some delay in completing the organization. As an initial step the board desired to secure J. M. Allen as president. Although then a young man of thirty-three, Mr. Allen had become known as an earnest investigator in the fields of science. Indirectly the discussions in which he took a leading part had led up to the formation of the company. At this juncture, however, he had made an engagement for a year in New York city and was forced to decline. October 13th H. H. Hayden was elected secretary, and November 10th Enoch C. Roberts, president.

At the outset, strangely enough, the enterprise suffered from open lack of faith on the part of those who appeared before the public as its sponsors. After a trial of a few weeks, Mr. Roberts sent in his resignation, but was induced to let it rest without action till the following summer. Director after director sold his stock and followed the example of the president. Others with difficulty were induced to step into the vacancies. General demoralization prevailed. The question of retiring from business was seriously discussed.

In its troubles the board again turned to Mr. Allen. He was now free to listen to overtures, and, on the report of the committee appointed to confer with him, was elected president, September 16, 1867.

At the annual meeting of the stockholders in 1868, the condition of the company had so improved that a special vote was passed expressive of their gratification, and their confidence in the future.

For a long time the process was slow, the toil incessant, and the way wearisome. Most seemed to regard the new departure as a useless novelty, that must soon run its short-lived course. What will Hartford people undertake to insure next? was a question often asked in tones of undisguised derision. In the hands of a manager less firm in conviction, or less conciliatory in manner, the prophecy of disaster must have wrought its own fulfillment. Mr. Allen met the flavor of sarcasm with the antidote of pleasantry, and toiled on to create a demand which it should be his future business to supply.

For the first five years the company occupied a single room, sixteen by eighteen feet square, and for the same period the floor of the vault was spread with papers for the protection of the books, from the unwillingness of the officers to go to the extravagance of fitting it up with shelves. In a moment of self-indulgence, the president did invest \$14 in a desk for his own use, but such outbreaks of luxury seldom occurred.

It is an open secret that all the successful insurance companies of Hartford practiced the most rigid economy till their business became thoroughly established, while those which set out with the theory that success could be hastened by a liberal scale of expenditure, invariably dropped into the sleep that knows no awakening. Other beginners may profit by the lesson.

Although the income of the company was at first small, the thoroughness of its inspections saved it almost wholly from losses. The cost of testing far exceeded any other item of outlay. For several years state insurance departments, recognizing the exceptional character of the business, and noting the infrequency of losses, did not require any charge to be made to liabilities for reinsurance-reserve. Hence savings over current expenses appeared on the books as net profits. Ten per cent. in dividends on the cash capital was paid in 1869, eight in 1871, and since then never less than ten. Besides, in 1872, \$20,000 from profits were indorsed on the stock notes, \$30,000 in 1873, \$25,000 in January, 1874, and \$15,000 the following October. In less than three years, out of surplus earnings, the cash capital had grown from \$100,000 to \$190,000. Meanwhile laws had been passed in several states excluding stock notes from admitted assets. Under the head of capital these were charged as a liability, and, hence, instead of a help, became a dead weight, burdensome in the ratio of volume. Accordingly, in October, 1874, under an act amending the charter, the capital was reduced from \$500,000 to \$200,000, and the par of the shares from \$100 to \$40. The stockholders were called on for \$10,000 to make it fully paid at once. In 1883 the General Assembly empowered the company to restore the capital to the amount authorized in the original charter by increasing either the number or par of the shares. In February it was increased to \$250,000 by a dividend of \$50,000 from profits. Here it remained till the annual meeting in 1887. Meanwhile the yearly business had grown thirteen-fold since, in October, 1868, the board saw fit to spread on the record a vote of congratulation over brightening prospects. Numerous failures in all kinds of insurance had taught the public to demand strength on the part of those to whom they looked for indemnity. Rivals came and went, and, during their brief sojourn in the land of the living, often sought patronage by a vain show

of wealth. To meet the situation, the company early in 1887 raised the capital to \$500,000 by allowing each stockholder to take his proportion at par in cash.

During the first year of his incumbency, Mr. Allen started the *Locomotive*, a monthly which has built up a body of valuable literature concerning the steam boiler and cognate subjects. In it, after exhaustive investigation, are treated, with various illustrative aids, particular cases of explosion, with the view of explaining the exact cause. From the multiplicity of inquiries thus pursued, generalizations of the utmost value have been formed. Thirty-two thousand copies are distributed each month, and the paper is highly prized, not only by practical men, but also by students of science. A. D. Risteen, a graduate of the Worcester Polytechnic School, is associate editor.

In the prosecution of the work the energies of the company are mainly directed to the cure of defects and the prevention of disaster. Boilers under its care are visited by experts at stated periods, and thoroughly examined, while the appliances intended to secure safety are put in complete order. During the year 1896, twelve thousand, nine hundred and eighty-eight dangerous defects were reported, and six hundred and sixty-three boilers were condemned. From the outset the company has made two millions, one hundred and seventy-seven thousand and forty-five inspections, discovered one hundred and ninety-six thousand and forty-six dangerous defects, and condemned ten thousand, four hundred and sixty-three boilers. Had these been allowed to go undetected, the neglect in bad cases would have borne fruit hereafter in the needless destruction of life, limb, and property. This part of the work is performed by two hundred and twenty-five skilled and trained inspectors.

Some defects are beyond the reach of human scrutiny, and hence, with the resources now at our command, the element of danger cannot be completely eliminated. In case of explosion or rupture, the company makes good all loss or damage to property, with indemnity for loss of life or personal injury, to an amount not exceeding the sum insured.

The home office is a magazine of statistics and information, collected from all parts of the country, and relating to every phase of the business, and of the whole patrons have the benefit free.

The company furnishes to the insured plans and specifications for boilers, settings, and piping; also for steam chimneys, and when desired, supervises the erection, at reasonable expense. These embody the principles taught by scientific research and approved by experience, as made to subserve the attainment of the highest degree of economy, efficiency and safety. Many large plants thus built in a few years have saved the original cost in fuel alone. Suggestions in the way of economy, care and management make a part of the ordinary inspections.

Calls upon the company for structural plans long ago became so numerous as to require a separate department for attending to this branch of the work. Advice is asked on all kinds of mechanical and engineering questions connected with the use of steam both for power and heating. Of special value are the studies here prosecuted in regard to the material, form, setting and riveting of boilers. The matter of riveting joints has been worked out with great care. As each hole weakens the plate, the problem is to find the frequency and size that assure the highest attainable strength. After solving the problem mathematically, President Allen caused joints to be made in exact conformity with the theory thus deduced. These were then tested at the United States arsenal at Watertown, Mass., when the strength was found to be within two-tenths of one per cent. of his computation. He foretold, too, the exact place of fracture when the resistance of the joint was finally overcome.

The company has a chemical laboratory under immediate charge of George H. Sevens, for the analysis of water. In some parts of the country water apparently good is found to be wholly unsuitable for steam, depositing a scale and corroding the interior of boilers. In such case the company points out the counter-agent which caused the trouble.

No officer or employee is permitted to have a pecuniary interest in any boiler or in any appliance. When the best advice is given, an attitude of impartiality towards the user is maintained.

There are about sixty-two thousand boilers, the annual explosions averaged about one per cent. The imagination alone can deal with the saving of life, of suffering, and of property, through the methods which have been discovered and introduced to the world by a company which might, without detracting from its prestige, be placed among the beneficent institutions of the country.

Up to January 1, 1897, the company had returned to patrons in losses paid and interest on investments, nearly \$2,000,000. During the year 1896, gross premiums reached \$1,000,000, and income from investments, \$84,422.30. There was disbursed in losses and interest, \$1,000,000. The company pays out a great deal to prevent trouble, and in the summer of 1896 little in the way of indemnity. On the same date gross assets of the capital of \$500,000, reached \$2,119,096.69, with unadjusted losses of \$1,000,000. As the outgo is used largely to defray cost of inspection, the reserve of \$1,119,096.69 may be regarded from the standpoint of the layman as technical rather than financial.

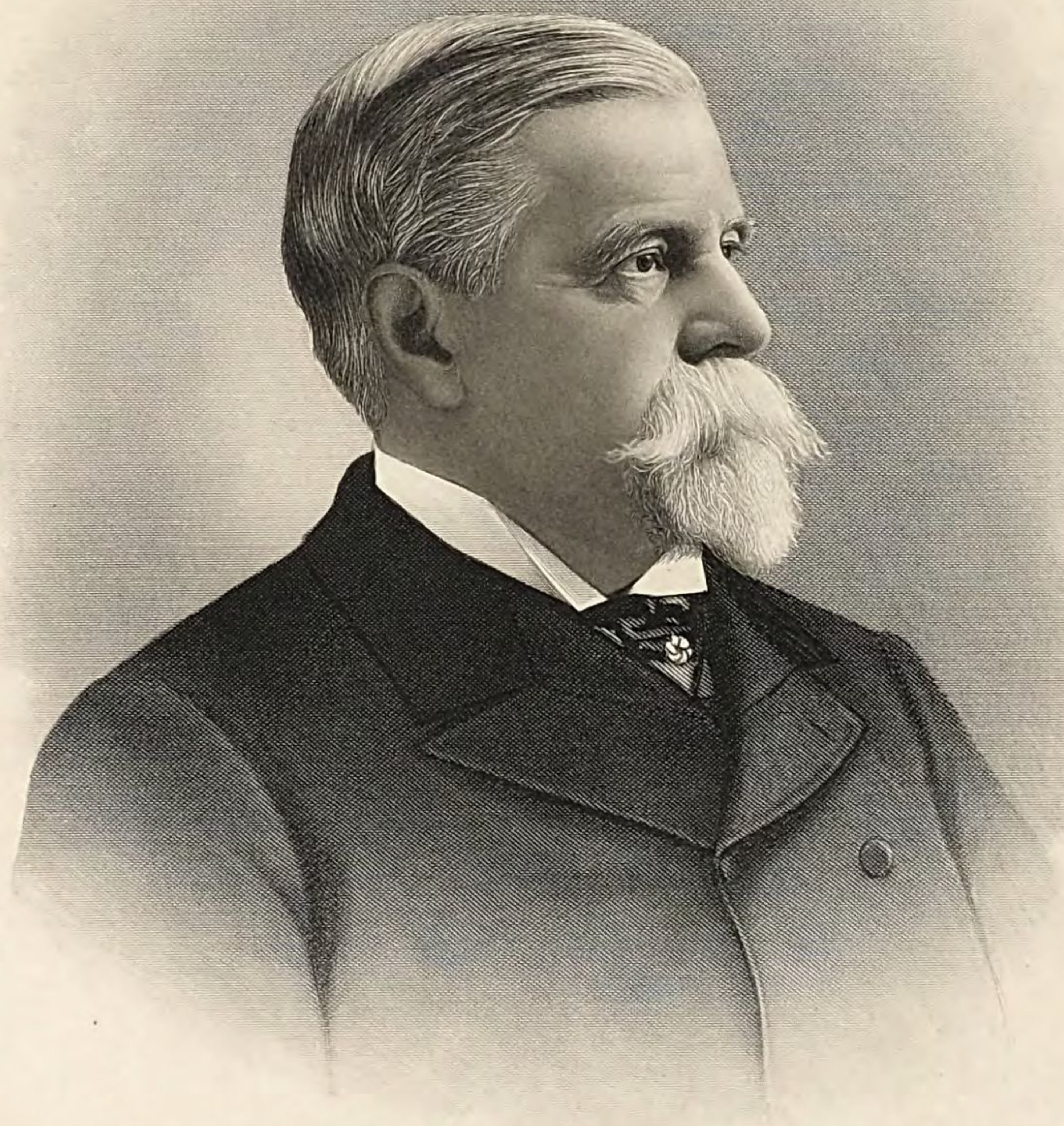
It should be borne in mind that the expansive force of steam is sufficient to rend any vessel in use. Hence none but competent engineers should be employed. Once in a while, in case of sudden sickness or some other emergency, a green hand is put temporarily in charge, and from this cause have come the most distressing casualties that have occurred under the policies of the company.

In 1873 the company moved into the present Aetna Life Insurance building, where new rooms are equipped with all scientific appliances for the conduct of the business. It occupies the entire second, and a large part of the third floor.

The history of this company is also the story of the life-work of its president, Jeremiah Marvin Allen. Born at Eufield, Conn., May 18, 1833, of a lineage where love of science and mechanics has been hereditary, his early studies and predilections seemed to lead up directly to the calling which fell to him unsought. While a teacher for four, and a fire insurance adjuster for two years, he attended to his duties with a fidelity that attracted attention, and at the same time gave his leisure to study. When Mr. Allen accepted the presidency there was no demand for the policies of the company. To convince steam users of the utility of the system, he made frequent and arduous journeys, often traveling by night, and using honeyed words of persuasion by day. A change, complete and universal, and having its sources in the early missionary work has since taken place. Regular inspections are now regarded as hardly less indispensable than fuel and water.

Mr. Allen's methods are rigidly scientific. He has prepared many formulae that express with mathematical precision the rules of construction and criticism constantly observed. Love of their chief, born of fatherly courtesy and kindness, explains in good part the loyalty of employees to the company.

Outside of his profession Mr. Allen has been of great service to the public by his skill in applying scientific principles to practical affairs. He is often called upon to discover hidden causes of trouble and to find a remedy. He has written much and many addresses on scientific subjects. He holds many positions of trust.



J. M. Allen

When the Hartford Board of Trade was organized in 1888, Mr. Allen was elected president, and by public importunity has been almost forced to retain the position ever since. Towards its usefulness in promoting the solid growth of the city his tact and judgment have very largely contributed.

The office of first vice-president is honorary, its incumbent not belonging to the active force. It is filled by Gen. William B. Franklin, late of the United States Army.

Francis Burke Allen, second vice-president, was born in Baltimore, Md., June 1, 1841; served the Illinois Central Railroad in the department of mechanical engineering, 1857-1861; served as an officer in the engineer corps of the United States Navy, 1862-1868; resigned in 1868 to become foreman of the Novelty Iron Works of New York; in 1871 accepted the position of assistant to the superintendent of motive power on the Northern Pacific Railway; in 1872 entered this company as special agent in the New York department; in 1882 was invited to Hartford as supervising general agent, and in 1887 was made second vice-president. Incidentally he has been a leading spirit in various military and naval associations.

Joseph Bancroft Pierce, secretary, was born in Thomaston, Conn., October 13, 1835, and after a short experience in manufacturing entered the insurance field in Hartford in 1860 as bookkeeper for the North American Fire, with which he remained as general agent, adjuster, assistant secretary and secretary till its extinction in the Chicago fire of 1871. He then became general agent of the National Fire of Hartford, and in March, 1873, secretary and treasurer of the Steam Boiler Inspection and Insurance Company, where he has since remained.

Lyman Bushnell Brainard, assistant treasurer, was born March 27, 1856, in Westchester, Conn., and at the age of twenty began to acquire experience in insurance as a canvasser. For a year from April, 1878, he solicited for the State Mutual of Hartford, giving up the position to become general agent and adjuster for the Jersey City, with which he continued till August, 1886, when he accepted a more lucrative position with the Equitable Mortgage Company of New York city, which he served as secretary and head of the bond department. He resigned March 2, 1894, to take his present place.

INSURANCE IN CONNECTICUT LOCALIZED.

With the exception of a few scattered mutual fire companies the business of insurance in Connecticut is now almost confined to Hartford. From time to time about one hundred and thirty separate institutions have received charters from the General Assembly of the state giving authority to engage in various forms of underwriting. Many tried the experiment and failed. Not only large fires, but long periods of mercantile depression have brought great fatality.

In Hartford towards the close of the eighteenth century a number of leading merchants and others, with the view primarily of protecting vessels and cargoes sailing from the river towns to the West Indies, undertook the work in constantly changing partnerships. In 1803 they formed a chartered company, which, though prosperous at first, withered during the Napoleonic wars and the War of 1812. While this venture was still struggling with perils of the sea the Hartford and the *Ætna* took up the work on land. Success attracted others. A profession was gradually formed to discover correct theories to which practice may, in the long run, safely be made to conform.

Here leadership has been gained, not by luck or accident or favoring circumstances, but by profound study of the facts and principles involved in the business, by high native intelligence, sharpened to a keen edge in frequent adversities, by

patient endurance through periods of misfortune, by heroic courage in meeting exceptional calamities, and not least by scrupulous integrity in dealings with the public.

The business, too, is conducted in a cosmopolitan spirit. Present managers have won their places not through favoritism or inherited influence, but through merit alone. Ability, character, technical skill, special gifts are welcomed from every quarter. The sketches above given show the breadth of area and the wealth of experience now brought together in the different offices of the city. In a word, conspicuous success has been won by intelligence and integrity. The decisive way in which occasional lapses from rectitude have been treated emphasizes the general truth by vividness of contrast.

STATE COMMISSIONERS.

The office of commissioner of insurance was created by a law passed in 1865, but singularly enough his duties were defined by a law enacted in 1864. The department was not established till 1871.

COMMISSIONERS.	TERMS OF SERVICE.	COMMISSIONERS.	TERMS OF SERVICE.
Benjamin Noyes	1865-1871	Orsamus R. Fyler	1886-1893
George S. Miller	1871-1874	* John S. Seymour	1893-
John W. Stedman	1874-1880	Burton Mansfield	1893-1895
John W. Brooks	1880-1883	Frederick A. Betts	1895-
Ephraim Williams	1883-1886		

* John S. Seymour held the office from March 4th to April 11th, 1893, when he resigned to take the office of commissioner of patents at Washington.



CHAPTER LIV.

CURRENCY AND BANKING IN CONNECTICUT.

BY JOSEPH GURLEY WOODWARD.

THE founders of the colonies of Connecticut and New Haven had little silver or other coined money. Their actual wants would not permit the appropriation of any considerable part of their slender capital to tools of exchange. Coin seldom appears in the early inventories of the estates of deceased persons. The inventory of the estate of the Reverend Thomas Hooker, taken in 1649, amounted to £1,136.15s., and included "Bookes in his studdy, etc.," £300. No money was set in the list. William Whiting, some time treasurer of the colony of Connecticut, a trader with England, Delaware, Virginia and Piscataway, and probably the richest inhabitant, in ready money, died in 1647. He left an estate valued at £2,854. In his inventory appear "plate and money," £14.10s., "wampum," £39.9s., "beaver, moos and wampum," £250.

The Indian wampum, made from marine shells, derived its value from the labor cost of production and the high estimation in which it was held by the Indians for ornament and ceremonial observances. It received official recognition as early as 1637 when the General Court made an agreement with Mr. Pyncheon for the purchase of Indian corn, the payment to be made in wampum at three a penny, or "marchantable beaver at X s. a pounce." In 1640, a late order concerning wampum at six a penny was dissolved, and the former rate of four a penny and two pence to be paid on the shilling was established. In the New Haven colony, it was voted that six white beads or three black beads should equal one penny.

Taxes were made payable in specified articles. When Connecticut entered upon the Pequot war in 1637, it was voted that Windsor should provide sixty bushels of corn, fifty pieces of pork, thirty pounds of rice and four cheeses; Hartford, eighty-four bushels of corn, three firkins of suet, two firkins of butter, four bushels of oatmeal, two bushels of peas, five hundred of fish and two bushels of salt; Wethersfield, thirty-six bushels of corn and one bushel of Indian beans. Indian corn was made a legal tender in 1642. By the code of 1650 it was ordered that the prices of all sorts of corn (which included wheat, peas, rye and Indian corn), receivable for taxes, should be such as the General Court should set from year to year. This code also provided, "by reason of the great scarcity of money," that whenever goods should be taken on execution, the creditor should make choice of one party, the debtor of a second, the court of a third, who should "prise" the goods taken upon execution and deliver them to the creditor.

The lively Madame Knight, who traveled through Connecticut in 1704, says the merchants "Rate their Goods according to the time and spetia* they pay in, viz.: Pay,

* Kind.

money ; Pay as money, and trusting. *Pay* is Grain, Pork, Beef, &c., at the prices sett by the General Court that Year ; money is pieces of Eight Ryalls, or Boston or Bay* shillings (as they call them), or Good hard money, as sometimes silver coin is termed by them ; also Wampom, viz. : Indian beads w^{ch} serves for change. *Pay as money* is provisions, as afores^d one Third cheaper then as the Assembly or Gene^l Court sett it : and *Trust* as they and the merch^t agree for time." Besides the articles already mentioned, beaver skins, for which the Old World furnished a ready market, flax, wool, codfish and bullets were made use of in payment of debts.

In spite of the temptation which the scarcity of money offered, and notwithstanding the fact that Massachusetts had issued bills of credit in 1690, it was not until June, 1709, when the government of the queen had called upon Connecticut to furnish troops for an expedition against Canada, that the General Assembly determined to issue similar bills to provide for its debts for the time being and to circulate as money. The preamble of the act ran : "Forasmuch as by reason of the great scarcity of money the payment of the publick debts and charges of the government, especially in the intended expedition to Canada, is made almost impracticable," etc. The amount was limited to £8,000, in suitable sums from 2s. to £5, and the bills were to be taken and accepted in all public payments [payments to the treasury] at a premium of 5 per cent. The form prescribed was this :

No. —

20s.

THIS INDENTED BILL OF TWENTY SHILLINGS, Due from the Colony of Connecticut, in New England to y^e Possessor thereof shall be in value equal to Money. And shall be accordingly accepted by the Treasurer and Receivers subordinate to him, on all public payments, and for any stock at any time in y^e Treasury. Hartford, July the twelfth, Anno Dom. 1709. By Order of y^e General Court.



J. C. }
J. H. } Com^{tee}.
J. E. }

And so *mutatis mutandis* for a greater or lesser sum. At the same time a tax of 10 pence in the pound, payable one-half in one year, and one-half in two years, was laid to provide for the redemption of the bills. Similar issues, to be redeemed by taxes payable at varying periods, followed at short intervals. In an act of the General Assembly the amount of bills outstanding in 1713 was computed at £20,000. According to Governor Talcott's statement rendered to the Lords Commissioners for the Board of Trade and Plantations, in 1739-40, the bills in circulation in 1713 amounted to £24,177,11s. 4d. By the same statement this was the largest amount outstanding prior to 1733, and in 1732 the amount had been reduced to £2,553,15s. 8d. Nevertheless the bills steadily depreciated in value. This is shown by an act of the General Assembly passed in 1718 "to prevent oppression by a rigorous exaction of money (which cannot be procured but with great difficulty) for debts contracted with the real intent both of debtor and creditor to be paid in bills, though not expressly mentioned," by which Connecticut bills were in substance made legal tender. The investigations of Dr. Henry Bronson† show that in

* This Bay shilling was the Massachusetts coin, having a value of only about three-fourths of an English shilling. It was received in Connecticut as a full shilling ; hence in Connecticut currency it required six shillings to equal the Spanish dollar, or the piece of eight, while in English coin 4s. 6d. were reckoned equal to the Spanish dollar.

† *Historical Account of Connecticut Currency*, etc., by Henry Bronson, M. D., New Haven, 1865. To the careful investigations of this writer I am indebted for much valuable matter introduced in this paper.

1708.....	September	one ounce of plate was worth 8s. in currency.
1710.....	May	" " " bullion " 8s. " "
1721.....	May	" " " plate was " 12s. " "
1724.....	July	" " " silver " " 15s. " "
1729.....	July	one ounce of silver was worth 18s. 2d. in currency.
1732.....	May	" " " " 18s. " "
1739.....	June	" " " " 26s. " "
1742.....	December	" " " " 26s. 4d. " "
1742.....	December	" " " " 28s. " "
1742-3.....	February	" " " " 28s. " "
1744.....	December	" " " " 32s. " "
1744-5.....	January	" " " " 32s. " "

The white population of Connecticut was officially estimated at 38,000 in 1730, but the militia in which all males from sixteen to fifty-five were enrolled numbered 8500. The estimate of the total white population should have been at least 45,000. The amount of Connecticut bills in circulation prior to 1733—less than £25,000 when greatest—will not account for the depreciation. Moreover, the depreciation was greater in 1732, when nearly nine-tenths of the bills in circulation in 1713 had been retired, than in any other year previous to 1733, except one mentioned in the table above. The explanation is to be found in the excessive issues of Massachusetts which were current at equal value with Connecticut bills.

In 1732 on the petition of Thomas Seymour, John Curtiss, John Bissell, Solomon Coit and fifty-seven others, The New London Society United for Trade and Commerce was chartered by the General Assembly. It began the issue of bills of credit similar to the bills of the colony in the following form:

S.	Three	S.
	N. London.	
3.	No. —.	3.

THIS INDENTED BILL OF THREE Shillings Due to The Possessor Thereof from The NEW LONDON Society United for Trade And Commerce in Connecticut Colony IN NEW ENGLAND shall be in value Equal to Silver att Sixteen Shillings p^r Ounce or To Bills of Publick Credit of this or the Neighbouring Governments, and Shall be Accordingly accepted By the Treasurer of Said Society, and In all Payments in Said Society from time to time. NEW LONDON, Aug't, 1732. ^{by} Order of Said Society.



J. W.	}	Cmt.
J. B.		
J. L.		
S. C.		

These first bills intended for circulation as money issued by a corporation within the limits of Connecticut were, according to Miss Caulkins,* "hailed by the business part of the community with delight." It will be observed that they were not a promise to pay money at any time, but an agreement that they should be received in payments to the society. The first notes had not been six months in circulation before such a commotion was stirred up by what was held to be an unwarranted assumption of the prerogative of government, that the governor called a special session of the General Assembly, which declared the issue unlawful, ordered the bills withdrawn, and repealed the charter of the society. The issue of similar bills was prohibited under the penalties imposed for forgery and counterfeiting. At the same session was authorized an issue of £30,000 in colonial bills, "a part thereof to be tendered to such persons as this Assembly shall appoint, and shall

* History of New London.

give security for the drawing in the bills lately emitted by the New London Society," and the other part to be let out for the benefit of the government. Thus began an issue of colonial bills as loans, in which Connecticut followed in the footsteps of Rhode Island and Massachusetts. The issues under this and similar acts amounted to £50,000. In January, 1739-40, according to Governor Talcott, there were outstanding of the loaned bills £33,594, and of bills issued in payment of the expenses of the government, £5,738.

The necessities of the government, arising from the expedition against the Spanish West Indies in 1740, led the General Assembly to authorize the issue of bills of new tenor which it undertook to keep at par with silver by force of law. The bills were in this form :

No. —

This Bill by a Law of the Colony of Connecticut shall pass current within the same for Twenty Shillings in value equal to Silver at Eight Shillings per Ounce, Troy weight, Sterling Alloy, in all Payments, and in the Treasury. Hartford, May 8th, 1740.

A. }
B. } Committee.
C. }

They were made a legal tender, and receivable by the treasury at a premium of 5 per cent. The amount to be issued was £30,000, of which £8,000 were to be applied to the payment of the public debts, and £22,000 were to be loaned, divided among the five counties in some near proportion to the general list of each county. A tax was laid which would extinguish the £8,000, in bills applied to the payment of the public debts in five years. At this time the old tenor bills were worth in silver less than one-third their face value; the rate of exchange being 3s. 3d. to 3s. 6d. in bills for one shilling of silver. In compliance with instructions from the home government, the legal-tender provision was repealed at a subsequent session in the same year. France joined Spain against England in 1744; and mainly to defray war expenses, Connecticut issued, 1744 to 1746, £114,000 in new tenor bills. The law could not keep the new tenor bills equal to silver, but it did succeed in making the notes current at the rate of one shilling, new tenor, equal to three and a half shillings, old tenor. Accounts were generally kept in old tenor bills, which circulated at par with the issues of Massachusetts and Rhode Island, and, in consequence of the enormous issues of these colonies, were heavily depreciated. Governor Hutchinson says Massachusetts emitted during the last years of the war between two and three million pounds. In 1744 a silver shilling of New England was worth four shillings in old tenor bills, and in 1749 it was worth seven and a half shillings, old tenor. Late in the day, too late to prevent a depreciation in its currency beyond that due to the amount of its own issues, in 1747, Connecticut enacted that bills of this colony only, or gold or silver, should be received for imposts, duties, excise, and other payments to the colony on county treasuries. The money to be received from England for reimbursement of the expenses of the expeditions against the French provinces, was appropriated by the General Assembly in 1749, to the payment of the outstanding bills of credit. Three taxes, each of £9,000, new tenor, to be paid in 1751, 1752 and 1753, were levied to discharge the remainder of the debt. In payment of these taxes, one shilling, silver coin, three shillings and sixpence, new tenor, and eight shillings, old tenor, were to be of equal value. This represents the estimate by the General Assembly of the depreciation of the currency at that time. In 1756, the Massachusetts and Connecticut bills having been largely retired, and the Rhode Island bills having been declared uncurrent, the General Assembly provided that all accounts should be kept in lawful money—silver.

Not all the bills were actually retired before 1755; for, when war with France over the boundaries began in that year, an act was passed providing for the issue to holders of bills of credit, orders on the colonial treasurer, payable in silver or gold, with interest, in one, two and three years; the purpose being to release, for the payment of war expenses, the money held in the treasury for the redemption of the bills. In the same year, for war purposes, bills of credit of a new and better form were authorized, viz.:

No. —

20s.

The Possessor of this Bill shall be paid by the Treasurer of the Colony of Connecticut, Twenty Shilling, Lawful Money, with Interest at five per cent. per annum, by the 8th Day of May, 1758. By Order of Assembly, at New Haven, January 8th, 1755.

They were payable at a definite time, bore interest, and taxes were laid to meet them at maturity. They were not a legal-tender, and although issued for small sums, the interest which they carried tended to prevent their use as currency. The Assembly reported to the Commissioners of Trade and Plantations, in 1764, that their value had remained invariable, permanent and stable, and that, save only some small sums of 1761, the bills issued prior to March, 1762, had been paid. The total issue of bills of their description between 1755 and 1764 was £359,000, of which £277,000 had been issued prior to March, 1762.

Between 1764 and 1775 other inconsiderable issues of bills, interest-bearing and non-interest-bearing, and payable at definite dates were made, and taxes were laid for their redemption. The amount outstanding at the beginning of 1775 probably did not exceed £27,000.

All issues prior to the Revolution were ultimately redeemed. Not, it is true, at the rate of a shilling in silver for each shilling on the face of the bills, but at the rate of exchange current when the bills were retired. This was essential justice so far as the holders for the most part of the bills at the time of redemption were concerned. In many cases the bills had been paid out at their depreciated value. The losses were incurred by the holders at the time when the depreciation was taking place, and this period lasted about forty years. For the depreciation the issues of Connecticut were responsible in small part only. If it had been practicable to exclude the issues of the neighboring colonies, it is probable that the depreciation of Connecticut bills would not have been great.

CHAPTER LV.

CURRENCY AND BANKING IN CONNECTICUT—Continued.



AT the outbreak of the struggle between the American colonies and Great Britain the people of Connecticut were undoubtedly prosperous. The census of 1756 showed a population of 130,611, while in 1774 the people numbered 197,856. An increase of 67,245, or more than fifty per cent., in eighteen years is not in harmony with waning fortunes. They were chiefly cultivators of the ground, and were pretty evenly spread over its surface. Ministers, doctors, lawyers, and traders were farmers as well, and each family produced for itself the greater part of what was necessary to supply its wants; raised its own beef, pork, poultry, and grain; made its own butter, soap, candles and lard, and spun the yarn for the linen or woollen cloth in which its members were clothed. The towns hav-

ing the largest population were, in the order of numerical importance: New Haven, Norwich, Farmington, New London, Stratford, Woodbury, Hartford, Wallingford, Middletown, and Fairfield. New Haven,* the largest of the towns named, had 8,295 inhabitants, but probably not more than one-third of them formed a part of the central aggregation of people, for, thirteen years later, the *city* of New Haven, then three years old, had a population numbering but 3,364. The territorial area of most of these towns was much larger than at present, and, doubtless, an enumeration of the persons then living within their present territorial limits would disclose a somewhat different order of importance. Nevertheless, the distribution of population is indicated with sufficient clearness, and the smallness of the most considerable town shows a limited trade. The ships sailing to foreign ports went chiefly to the West Indies, carrying out horses, lumber, and provisions, and bringing back rum, molasses and sugar. A contract for gunpowder, under which it was estimated that Messrs. Willing & Morris would make a profit of at least £12,000, equal in Connecticut or Massachusetts to \$40,000, being under discussion in Congress, in 1775, Colonel Dyer, of Windham, said: "There are not ten men in the colony I came from who are worth so much money, as will be made clear by this contract." †

Merchants received any of the products of the country in exchange for their goods. In January, 1775, James Tiley advertises in the *Connecticut Courant* his readiness to sell jewelry for wheat, rye, Indian corn, white beans, or pork.

A great change in the conditions of business began with the arming of the colonies for battle, and the consequent enormous emissions of paper by authority of Congress and the colonial governments. The news of the skirmish at Lexington in April, 1775, brought the Connecticut legislature immediately together, and to meet expenses, it voted to emit £50,000 in bills of credit, payable in two years, without interest, in lawful money or bills of this issue. In May £50,000, dated June 1, payable in three years, were authorized, and in July £50,000 more, dated July 1, payable in four and a-half years, making in all £150,000 for the year 1775. Three taxes of seven pence on the pound, each, were laid to meet these issues. In the same year Congress voted at different times to issue six millions of "Spanish milled dollars" in bills of credit, "the twelve confederated colonies to be pledged for their redemption." The liability for these bills was to be apportioned among the several colonies in the ratio of their supposed number of inhabitants of all ages, including negroes and mulattoes, and they were to be redeemed in eight annual instalments, beginning after four years.

Although the "Spanish milled dollars" did not make their appearance until August, "early the next year difficulties began to arise." The bills were sometimes refused, confidence was weakened, and depreciation followed. Then came from Congress and the committees of safety, threatening resolutions denouncing the refractory. It was the first serious emergency, and required prompt relief. Patriotic men who had the means stepped forward to redeem the bills at par, some of whom exchanged as much as a thousand pounds of silver for a like sum in paper. When

* The following is the population of the towns named in the text in 1774 and 1890:—

	1774.	1890.		1774.	1890.
New Haven.....	8,295	86,045	Woodbury	5,313	1,815
Norwich.....	7,327	23,048	Hartford.....	5,031	53,230
Farmington	6,069	3,179	Wallingford.....	4,915	6,584
New London.....	5,888	13,757	Middletown.....	4,878	15,205
Stratford.....	5,555	2,608	Fairfield	4,863	3,868

† Works of John Adams, Vol. 2, page 449.

Congress, hastening to propose a remedy, "*Resolved*, That if any person shall hereafter be so lost to all virtue and regard for his country as to refuse to receive the bills in payment, or obstruct and discourage the currency or circulation thereof, and shall be duly convicted by the committee of safety of the district, such person shall be deemed, published, and treated as an enemy of the country, and precluded from all trade or intercourse with the inhabitants of these colonies."*

In March, 1776, at a meeting of the committees of inspection of fifteen towns in the county of Hartford, "the late alarming rise of the price of West India goods" was taken into consideration, and a schedule of "reasonable prices" was fixed. At its October session the General Assembly seconded the action of Congress by making continental bills and bills of the state of Connecticut "a legal tender as money in all payments within this state." And to frustrate the attempts of evil-minded persons, inimical to the liberties of the states, to depreciate such bills, it was enacted that any person offering, demanding, or receiving them below their nominal value, should forfeit the full value of the money exchanged, or the property sold or offered for sale. In November, in consequence of "the rapid and exorbitant rise upon the necessaries and conveniences of life in this day of public calamity and distress," a law was passed regulating prices, to the violation of which "the pains and penalties of the laws of this state against oppression" were affixed. But this act was not sufficient to secure the object aimed at, and the next month a more detailed and stringent bill was passed on the same subject.

During this year an attempt was made by Congress to raise money through loan offices established in each state, empowered to issue interest-bearing certificates, payable in three years. The issue of bills this year, by authority of Congress, amounted to \$19,000,000, and by the state to £110,000. In the month of January, 1777, the rate of exchange of paper for coin was one and one-quarter for one, at Philadelphia.† In February the rate of interest on the loan office certificates was raised to six per cent., and was made payable in thirty-day drafts on the United States commissioners at Paris, where money had already been borrowed and more was hoped for. Congress also earnestly recommended to the several states to refrain from further emissions of bills of credit, and "forthwith to call in by loans or taxes, and to cancel the paper money, small bills for change under a dollar excepted, which such state has already emitted; and, for the future, to provide for the exigencies of war and the support of the government by taxes."

Connecticut issued no bills for circulation this year except £5,250 in notes of small denominations, ranging from two pence to seven pence. The treasurer of the state was authorized to borrow, not exceeding £72,000 "in continental bills or bills of this state," and to issue therefor notes for sums not less than £30, payable in one year, with interest of six per cent. The former acts concerning prices were repealed and a law was passed forbidding the purchase or sale, except in small quantities for consumption, of rum, sugar, molasses, wine, tea, coffee, salt, woollen, linen or tow cloth, stockings, shoes, hides, leather, wool, flax, cotton, butter, cheese, wheat, rye,

* Historical sketch of continental paper money, by Samuel Breck, read before the American Philosophical Society of Philadelphia, July 3, 1840. Samuel Breck was born in Boston, 1771. He lived in Philadelphia, and was a member of Congress, 1823-25.

† Essays by Pelatiah Webster, A. M., printed between 1776 and 1790. Mr. Webster was born at Lebanon, Conn. He studied theology and preached at Greenwich, Mass., 1748-49. He was afterwards a merchant at Philadelphia, and was an active Whig during the war. He suffered, both in person and estate, at the hands of the British, and was confined in the city jail one hundred and thirty-two days.

beef, pork, cider, tobacco, etc., until the dealer had become known as the friend of freedom, obtained a license, and taken the oath of fidelity. The penalty for a violation of this act was forfeiture of double the value of the goods bought or sold. Public feeling was greatly excited against speculators, who were stigmatized as "monopolizers," "forestallers," and "engrossers." Washington wrote, in 1778: "It is much to be lamented that each state, long ere this, has not hunted them down as pests to society and the greatest enemies we have to the happiness of America. I would to God that some one of the more atrocious in each state was hung in gibbets upon a gallows five times as high as the one prepared by Haman."

The issue of continental bills amounted in 1777 to \$13,000,000, and January 1, 1778, the rate of exchange reached four of paper for one of silver at Philadelphia.* This year (1778) the Connecticut legislature made still another vain attempt to control prices by legal enactment, and passed a law which "established the price of every important article, and made provision for those not enumerated. Labor, of whatever kind, was not to be more than seventy-five per cent. higher than before the war. Importers might, with certain exceptions, charge one continental dollar for each shilling sterling paid for their goods in Europe. Retailers of foreign goods were permitted to make a profit of twenty-five per cent. Innkeepers might advance fifty per cent. on the wholesale cost of their liquors, etc. Among other things it declared that any person who should be convicted under it should pay a fine of not less than forty shillings, and be forever disqualified from holding office in this state, 'or of prosecuting or maintaining any suit at law, or of taking out any execution.' And no person whatever could 'commence or maintain any suit, either in law or equity, in any court,' till he had sworn 'by the ever-living God,' that he had not been guilty of a breach of this act."

This act was soon after its passage, at the instance of Congress, first suspended and then repealed. At the same session it was also enacted that no more bills for circulation should be issued by the state; "that those in circulation should be taken up and canceled by loans, and that the charges of the government should be met by taxes. It was also enacted that none of the bills of this state, except those under one dollar, should 'be current in any payment, trade, or dealing, after the twentieth of March next,' though they might be received into the treasury for taxes till the first day of July. The last-named period was afterwards extended to March 1, 1779.

"While the state bills were, in this way, proscribed as money, holders of them were permitted, till the said twentieth day of March, 1778, to exchange them for the treasurer's promissory notes, 'or bills emitted on the credit of the United States.' The said treasurer's notes were to carry interest at six per cent., and to run one year. None was to be for a less sum than ten pounds, and the whole were not to exceed £235,000, the estimated amount, probably, of the outstanding bills of one dollar and over. In April, 1779, the said bills which were 'not yet brought in' were still to be taken by the treasurer, and continental money given in exchange for them till the ensuing September. By these measures the state issues of the higher denominations were withdrawn from circulation, and no more is heard of them as a part of the currency. The small remnant which remained, though forfeited by the neglect of holders, was presented and allowed as a claim against the United States government under the Constitution, forty for one."† December 16, 1778, Congress resolved to raise the next year by taxes \$15,000,000, and later the states were called on to pay in addition to other levies, their respective quotas of \$6,000,000 annually for eighteen

* P. Webster.

† H. Bronson.

years, beginning with the year 1780. The bills issued prior to 1780, and no others, were to be received in payment of this demand. Those not wanted for the payment of the interest or principal of loans were not to be re-issued, but burned or destroyed.

The issue of Continental bills for the year 1778, amounted to \$63,500,300, and January 1, 1779, one dollar in silver would buy seven in paper at Philadelphia.* From this time the difference between paper and specie grew wider and wider with frightful rapidity, and May 19th, when paper had fallen to twenty-four for one, the frightened Congress called on the states to pay \$45,000,000 into the treasury, before the 1st of the following January. This call, and a resolution to avoid further emissions, had a favorable effect upon the credit of the paper, and in June the rate of exchange was eighteen for one. The favorable reaction was but temporary, and, as early as September, paper passed at twenty-eight for one of specie.

The halt in the spring of 1779 was the last in the downward course of Continental money. The sums paid by the state in response to the calls of Congress were small. According to the Congressional manifesto, put forth September 13, 1779, out of sixty millions of paper money already called for, from the states, three millions only had been received by the public treasury. The amount of Continental bills outstanding was \$160,000,000. Congress vainly attempted to restore confidence and resist depreciation by appeals to the people, which were printed in the newspapers and read in the churches. "America," said they, "almost totally stripped of commerce, and in the weakness of youth, as it were, with 'a staff and sling only,' dared 'in the name of the Lord of Hosts,' to engage a gigantic adversary, prepared at all points, boasting of its strength, and of whom even mighty warriors 'were greatly afraid.' Our enemies prosecuting the war by sea and land with implacable fury, taxation at home and borrowing abroad, in the midst of difficulties and dangers, were alike impracticable. Hence the necessity of new emissions." Congress resolved that in no event should the amount of bills outstanding exceed \$200,000,000. Before the end of the year the limit was reached. The issues for 1779 were \$140,052,480, making with those of the previous years† \$241,552,780.‡ The difference (\$41,552,780) between this amount and the limit fixed by Congress (\$200,000,000) had been withdrawn, it is understood, by taxes and loans.

At the beginning of the year 1780, paper stood at forty for one in Philadelphia. The Connecticut General Assembly could no longer overlook its depreciation, and repealed the law making state and Continental bills a legal tender; but it issued, the greater part of the old state bills having been retired, £190,000 in bills of credit called new tenor, bearing interest at five per cent., which being, "founded on the most indubitable principles of public credit," were to be "received in payment of all salaries, fees, and rewards for services within this state," as the equivalent of coin.

Congress attempted this year to replenish its treasury, and to retire the Continental bills by a somewhat complicated plan. The states were asked to levy taxes of \$15,000,000, monthly, for thirteen months, payable in bills or in specie, one dollar in specie being reckoned equal to forty dollars in bills. These taxes would produce, it was calculated, \$195,000,000, and would provide for the outstanding bills. New bills, guaranteed by the United States, were to be issued by the states, in proportion to their several quotas, to the amount of one-twentieth of the sum redeemed by

* P. Webster.

† The denominations of the bills were: 1-16, $\frac{1}{3}$, $\frac{1}{2}$, $\frac{2}{3}$, 1, 2, 3, 4, 5, 6, 7, 8, 20, 30, 35, 40, 45, 50, 55, 60, 65, 70, 80.—*Bronson*.

‡ Report of the register of the treasury, January 22, 1828. Bronson thinks the amount should be \$500,000 more.

taxes; six-tenths of the proceeds of the new bills were to be retained by the states, and four-tenths were to be paid into the treasury of Congress. They were to bear five per cent. annual interest, and to run six years.

If this scheme had succeeded, the old tenor notes would have been withdrawn at a valuation of forty in paper for one in coin, and the new tenor bills, issued as a part of this scheme would have amounted to but \$10,000,000. This amount it was thought might be kept in circulation at par. It was not an unreasonable supposition. Hamilton, in a letter to Robert Morris, April 30, 1781, estimated the current cash of America, previous to the war, to have been about thirty millions of dollars, of which only one-eighth was specie. Under the plan proposed by Congress, an amount variously estimated from seventy-nine to eighty-eight millions of old tenor, continental bills, was retired; but the new tenor bills did not secure the confidence of the public and rapidly declined in value. They were paid out, at different rates, averaging three for one of coin. At length, they became worth no more than five or six for one, and Congress advised that the states stop the supply. June 28, 1780, Congress made provision for "discharging or continuing the loans that have been made to these United States, on loan-office certificates," so that the holders of them should "sustain no loss thereon by any depreciation of the bills loaned, subsequent to the respective dates of the said certificates," by fixing a schedule of the progressive depreciation of continental bills, in accordance with which the *loan-certificates* were to be liquidated. By this schedule, bills on or before September 1, 1777, were to be reckoned at par, and on March 18, 1780, and subsequently, at forty for one, and at a progressive, proportional value between the dates named. January 1, 1781, one hundred dollars in continental bills were worth but one dollar in specie, and their credit weakened so rapidly during the succeeding months that by the end of May in that year, "they ceased to pass as currency, but were afterward bought and sold, as an article of speculation, at very uncertain and desultory prices." *

Thus, says Mr. Webster, "died the continental currency, aged six years. Bubbles of another sort, such as the Mississippi scheme in France, and the South Sea in England, lasted but a few months and then burst into nothing; but this held out much longer, and seemed to retain a vigorous constitution to its last; for its circulation was never more brisk than when its exchange was five hundred for one; and yet it expired without a groan or struggle; and I believe of all things which ever suffered dissolution since life was first given to the creation, this mighty monster died the least lamented." "The people were tired of the daily variation of prices, and felt how ridiculous was the state of a currency which required five hundred dollars in paper to pay for a breakfast that could be bought for a silver half-dollar." †

In justice to the worthy gentlemen, who, as members of Congress, voted for the issues of continental money, it should be remembered that that body had no power to tax directly or levy duties on imports. It could merely recommend action to the states without the power to enforce its recommendations. In the early summer of 1775, money was wanted at once; there was not time to ask it of the states, and, besides, their treasuries were empty. A loan, for a considerable amount, by a revolutionary association not yet a government, among a people, as a rule, poor, including many persons, and those generally of the richer sort, who looked with disfavor on the new movement, a people who, counting every shilling of their small hoards, could not have mustered two millions of pounds in hard money, was out of

* P. Webster.

† Breck.

the question. An issue of notes for circulation was, apparently, at first, the only resource. The reluctance of a weak authority to impose present burdens out of regard to future and remote dangers led to subsequent emissions. "Do you think, gentlemen," said a member of Congress, "that I will consent to load my constituents with taxes when we can send to the printer and get a wagon load of money, one quire of which will pay for the whole?" After the amount of money in circulation had been greatly increased, but before the bills ceased to circulate, at least nominally, at par, Congress made attempts to secure loans at home and abroad. The proceeds of these loans were, however, not sufficient to meet the multiplied demands of war, and again necessity seemed to compel a resort to the easy and familiar resource which had supplied the treasury before. When, at last, the depreciation of the bills brought Congress to realize its duty and vigorously call for taxes, the states, divided by jealousies, and enfeebled by the very means which had been a source of strength in the beginning, failed to respond, and continental money broke down altogether.

There was no thought of repudiation. "A faithless republic," said Congress, "would appear like a common prostitute among chaste and respectable matrons. The pride of America revolts from the idea. Her citizens know for what purpose these emissions were made, and they must be redeemed. He must entertain a high opinion of American credulity who supposes the people capable of believing that *all* America will act against the faith, the honor, and the interest of *all* America. Knowing, as we all do, the value of national character, and impressed with a due sense of the immutable laws of justice and honor, it is impossible that America should think without horror of such an execrable deed."

The foregoing statements of the depreciation of continental money at different dates are derived from a table, compiled by P. Webster from the merchants' books at Philadelphia, and represent the depreciation at that point. The country was not then bound together by railway and telegraph lines, and the value of the currency was not equal in all places at the same date. As late as May, 1781, speculations were entered into at Philadelphia, to purchase continental money at two hundred and twenty-five for one, and sell it at Boston, at seventy-five for one. The depreciation in Connecticut has not been ascertained as definitely as the depreciation at Philadelphia, but that it was much less is quite certain. The decline in the purchasing power of the currency was the result of two causes: its excessive amount, and a want of confidence in its ultimate redemption. Neither of these causes operated as powerfully in Connecticut as at Philadelphia. When the medium of exchange, whether paper or coin, is increased, the decline in its purchasing power is first observable where it is put in circulation, a truth strikingly exemplified in our own day in California and Australia. Philadelphia was the commercial and governmental metropolis, and a point where large amounts were paid out, and contained, also, a great number of wealthy and respectable citizens, disaffected to the revolutionary cause, whose opinions would diminish confidence in Congress and powerfully affect the general estimate of public credit; while Connecticut was neither a centre of trade nor of army operations, and contained, relatively, fewer influential Tories.

Claims of individuals, other than holders of loan office certificates, against the United States, against one another, and against the respective state governments were liquidated in accordance with a scale especially fixed for each state. The General Assembly of Connecticut adopted the congressional loan office schedule for the settlement of contracts. In New York, contracts were settled on the same basis. In most of the other states, notably in New Jersey, Pennsylvania, Delaware, Maryland and Virginia, the depreciation was reckoned in settlements at a much greater

rate. The scale established in Pennsylvania corresponded, except in the months near the close of the period during which continental money was used, to the real depreciation, as stated by Mr. Webster. It is most probable that the scale adopted by Connecticut, if not quite just for this state, was an over-valuation.*

The rapid and extreme fluctuations in prices caused by the great additions to the currency, awakened a spirit of speculation which infected all classes and was wantonly indulged. Some large fortunes were realized. The people were corrupted by the rage for sudden wealth, and industry was checked; for who would dig and sweat in the field or workshop when fortunes were to be made from nothing without labor? The operation of the legal tender laws was unequal, unjust, and frightfully disastrous, and the moral sense was clouded or obliterated. Old debts contracted and money lent in specie were paid in depreciated paper and great numbers of families, widows and children were ruined.

After the downfall of continental money, the state bills emitted in 1780 continued in circulation and were current at the rate of about two for one of specie. They were eventually redeemed by taxes.

A part of the French army, landed at Newport in 1780, was afterward quartered in Connecticut, and paid for its purchases in specie; the coin of the British forces at New York was a great temptation even to ardent Whig farmers, and New London sent out successful privateers. From these sources no little specie was derived. Hamilton thought the stock in the United States had, in 1781, increased fifty per cent. since the beginning of the war.† The old system of barter was also resumed, and a great variety of evidences of public indebtedness, called into existence by the war, came into use in trade. An insurance office was opened at New London, March 1, 1785, which received premiums in West India goods, public securities, or specie, and paid losses in the kind in which the premium was received. Loan-office certificates;

*From "an act ascertaining the value of continental bills of credit and of contracts made therefor," etc., passed by the General Assembly at the October session, 1780, and showing the value of one hundred Spanish milled dollars in continental currency at the dates named:—

1777.	1778.	1779.
September 1\$100	July 15..... \$332	June 1..... \$1344
September 15. 104	August 1..... 348	June 15..... 1404
October 1..... 109	August 15..... 370	July 1..... 1486
October 15..... 115	September 1..... 400	July 15..... 1548
November 1..... 121	September 15..... 429	August 1..... 1631
November 15..... 127	October 1..... 464	August 15..... 1709
December 1..... 133	October 15..... 500	September 1..... 1800
December 15..... 139	November 1..... 545	September 15..... 1908
1778.	November 15..... 584	October 1..... 2032
January 1..... 146	December 1..... 634	October 15..... 2151
January 15..... 152	December 15..... 679	November 1..... 2340
February 1..... 160	1779.	November 15..... 2433
February 15..... 167	January 1..... 742	December 1..... 2597
March 1..... 175	January 15..... 796	December 15..... 2741
March 15..... 180	February 1..... 868	1780.
April 1..... 203	February 15..... 932	January 1..... 2932
April 15..... 214	March 1..... 1000	January 15..... 3115
May 1..... 230	March 15..... 1048	February 1..... 3333
May 15..... 245	April 1..... 1104	February 15..... 3533
June 1..... 265	April 15..... 1150	March 1..... 3732
June 15..... 281	May 1..... 1219	March 15..... 4000
July 1..... 303	May 15..... 1272	

† Letter to Robert Morris, April 30, 1781.

Connecticut, New York, Massachusetts, and Pennsylvania notes, issued for soldiers' pay; quartermasters' certificates; indents, or certificates for overdue interest; final settlement certificates; and pay-table orders were among the forms of public debt in current use in making purchases or the satisfaction of private debts, and in which individual promissory notes were often made payable. They passed at an unequal and irregular, but always heavy discount.* State obligations were much higher than the obligations of Congress. The notes of the Bank of North America and the notes of Robert Morris,† in 1782, seem to have been equivalent to cash. A fair price, for several years before the adoption of the Constitution, for loan office certificates, was from twelve and a half to fifteen cents on a dollar, or, as it was then the custom to quote securities expressed in dollars, as well as others, 2s. 6d. or 3s. in the pound.

Connecticut had made great exertions and sacrifices during the war, and when the independence of the colonies was recognized by Great Britain in 1783, the state was in a greatly impoverished condition. Although reckoned not higher than the fifth state in population, it had furnished to the Continental ranks more soldiers, or annual terms of service, than any state except Massachusetts. It had levied, on the lists of polls and ratable estate, taxes, between May, 1775, and January, 1783, amounting to £7 16s. 7½d. in the pound, averaging more than one hundred per cent. annually, payable in currency and specie, and 11½d. in the pound, payable in certain specified products of the country, and had, besides, incurred a debt of £1,031,726 1s. 8d. specie value.‡ Danbury, Fairfield, Green's Farms, Norwalk and New London had been burned, and New Haven had been plundered.

Individuals led into extravagant engagements during the earlier years of paper money, and others, were heavily in debt. Great quantities of military supplies had been furnished to the army, for which the only payment had been the certificates of a government without credit, without revenue, and ready, now that the pressure of a common enemy was removed, to fall in pieces. It is not strange that the people were depressed; that "almost every individual believed he had already paid and suffered more than his just share of the public expense."

The five years' pay granted to officers in lieu of half pay for life and the institution of the harmless Society of the Cincinnati provoked great popular indignation. Mobs were raised to prevent the officers from receiving their pay, and an attempt was made by the leaders of disorganization to secure political control of the state.

There was apparently, no surplus of any kind of personal property, except public securities. Congress had lauded the continental money, because it would

* A writer in the *New Haven Gazette*, June 14, 1787, says:—"Most of our creditors were paid in certificates which sank instantly two, three and even seven hundred per cent." I cannot undertake to explain how his remark can have been strictly true, but there can be little doubt as to the meaning.

† The results of this investigation as to the kind and character of the notes issued bearing Morris's name are extremely unsatisfactory. It seems probable that he issued two kinds of paper. One of them, probably the earlier, which he began to issue in 1781, were certificates of indebtedness for irregular amounts, signed by the Superintendent of Finance, and binding the United States, not himself. The other kind he was probably led to issue later. In the state of public credit, his indorsement would add to the value of a note issued by the United States. The notes, if manufactured for regular and round sums, would have great advantages for purposes of circulation. The same would be true if they were made to fall due at a date. We still find it difficult to understand, however, in what way or to what extent he put his own name and credit into them.—*The Financier and the Finances of the American Revolution*. W. G. Sumner. New York: 1891.

‡ Report of the Committee of the Pay-table, to the General Assembly, May 15, 1783.

"remain with the people; it would not forsake them." The public securities possessed the same quality in a marked degree, while the specie was rapidly drained off, at the return of peace, to pay for the goods required by the country, after having been so long cut off from the markets of the world by the ships of the enemy.

As early as 1786 brokers' offices were opened in the principal towns for the purpose of dealing in public securities.

The period of depression lasted until the favorable reception of the proposition to amend the Articles of Confederation, and render them "adequate to the exigencies of the Union," awakened hope. This feeling was strengthened and confirmed by the happy conclusion, September 17, 1787, of the labors of the convention which framed the present Constitution of the United States, and the ratification of the Constitution during the following year, by a number of states sufficient to make it certain that the new government would go into operation.

The first Congress under the Constitution met in the spring of 1789. One of the earliest measures adopted provided a revenue through duties on imports. While the bill was under discussion the probability of its passage advanced the price of loan-office and final-settlement certificates to 4*s.* 7*d.* in the pound, or about twenty-three cents on the dollar.

This advance upon the prices lately prevailing of eight or ten cents on the dollar, equivalent to an advance of fifty or eighty per cent. on the first price, contributed to intensify the reaction out of which it grew, and to prepare the public mind, long accustomed to be disappointed in every species of public propositions, to receive with hopeful favor other financial measures coming from Congress.

In January, 1790, Hamilton laid before Congress his famous report on public credit. The debt of the United States consisted of:—

The foreign debt, amounting with arrears of interest, to.....	\$11,710,378.62
The domestic debt, amounting with like arrears, computed to the end of the year 1790, to.....	42,414,085.94
Making together	\$54,124,464.56

The unliquidated part of the domestic debt, that is, that part of the debt obligations for which, issued for a nominal amount of depreciated paper, had not been exchanged for certificates expressing the amount due in specie, was estimated in the above statement at \$2,000,000. It consisted chiefly of continental bills of credit. Hamilton proposed that the foreign debt should be provided for according to the precise terms of the contracts relating to it; this was agreed to. Concerning the domestic debt, he submitted several propositions, one of which contemplated the payment of one-third of the debt in lands in the western territory, at the rate of twenty cents per acre.

The funding bill, as finally passed, gave holders of the domestic debt, for the principal of their claims, six per cent. stock at par, on two-thirds of which interest was to begin at once, and on the remaining one-third after ten years. Holders of continental bills were provided for on similar terms, the bills being reckoned at the rate of one hundred for one. For the arrears of interest three per cent. stock was issued at par. By the same act state debts to the amount of \$21,500,000 were assumed by the United States. The apportionment for Connecticut was \$1,600,000.

The act was passed August 4, 1790. The year was one of wild speculative excitement; before it closed the six per cent. stock was quoted at 18*s.* in the pound or 90 cents on the dollar. Buyers of public securities scoured the country

on horseback in every direction, and swift-riding messengers, furnished with relays of horses, were night and day on the roads between the principal towns in the interest of excited speculators. The advance in the market value of United States securities within a year and a half was not far from \$30,000,000. In a nation of but four millions of people, at a time when the purchasing power of money was so great and the habits of the people so simple that, according to Fisher Ames, fifteen hundred dollars was a fair annual compensation for the services of the best lawyers of New England, this restoration of public credit, although, of course, it did not add one dollar to the real possessions of the nation, had all the effects of an enormous addition to its wealth.

By it private credit was re-established, trade and industry, which had long been in a languishing condition, were stimulated, and the productive power of the country was enhanced. The new stimulus was, however, too powerful to be entirely healthful. The great gains already realized and the hopefulness arising from success led to a formation of a multitude of venturesome schemes for money-making, many of which involved their projectors in ruin.* The speculative mania engendered by rapid gains was, by no means, confined to the larger places. It penetrated to the remotest agricultural towns, for the evidences of public indebtedness were as thoroughly distributed as the "greenbacks" of a later era. The popular excitement of the time, in the extent to which it pervaded all places and took possession of all persons, was probably not equalled at any period during the late war for the preservation of the Union.

Gigantic land operations were set on foot, and the thirst for gambling found gratification, also, in the lotteries instituted for innumerable objects. These lotteries had the sanction of law, and were managed by the most respectable citizens. They

* "The first great event which gave birth to extended speculation in the United States was the establishment of the funding system, *i. e.*, the scheme adopted by the American government for funding and paying the public debt incurred by the Revolutionary War. The speculations which sprang from this source pervaded and shook every state in the Union. In New York three persons—probably possessing a capital amounting scarcely to forty-five thousand dollars—commenced a course of adventures in the field which at that time astonished the community, and will hereafter be considered as an Arabian tale. One was a lawyer of considerable reputation, and connected with several respectable families. He was acute, inventive, sanguine, bold, eloquent and persuasive. A second was a merchant, apparently engaged in extensive business, and commonly supposed to be rich. The third was an active, enterprising man. By a series of singular efforts which cannot be here described, these three men embarked a considerable part of the community in the business of buying and selling the public stock, and ultimately raised the mania to such a height that the six per cent. stock was sold in the market at twenty-six shillings on the pound. You will easily believe they must have obtained enormous loans and an almost unlimited credit. On this basis they carried their views so far, it is said, as to form a serious design of purchasing the whole stock belonging to the bank of the United States, amounting to ten millions of dollars, and the whole of the six per cent. stock, amounting to upwards of thirty-nine millions more. In the progress of the phrenzy multitudes of all classes, and among them many widows and orphans, lost the whole of their property."—*Travels in New England and New York*, by Timothy Dwight, S.T.D., LL.D.

Dr. Dwight is in error in some matters of detail. The whole of the six per cent. stock did not amount to so much as \$39,000,000; only eight millions of the stock of the Bank of the United States could be taken by individuals; and, according to the report of the secretary of the treasury, February 19, 1793, the highest price reached by the United States sixes in 1792, the year in which the speculation culminated, was 25s. in the pound. This report says further: "A large proportion of the time" (during 1791 and 1792) "the prices were evidently artificial, and such as predicted a great fall not far distant." The price did not fall below par in 1792.

were formed to build bridges, wharves, factories and public buildings, and later were a favorite means of raising money for the building of churches.*

In December, 1790, after the funding bill had gone into successful operation, Hamilton laid before Congress a report on a national bank. At that time there were but three banks in the United States: the Bank of North America, at Philadelphia; the Bank of New York, at New York; the Bank of Massachusetts, at Boston. The report contained an elaborate argument, showing the utility of banks, and a reply to the objections which had been or might be urged against their establishment. It also set forth in detail a plan for a bank of the United States, which was substantially adopted by Congress. The capital of the bank was fixed at \$10,000,000, divided into twenty-five thousand shares of \$400 each. Five thousand shares were assigned to the United States, and twenty thousand to the public. The shares taken by the public were to be paid for, one-fourth in gold and silver coin, and three-fourths in United States 6 per cent. stock at par, or 3 per cent. stock at fifty; 25 per cent. at the time of subscription, and the remainder in equal parts at the end of six, twelve and eighteen months. The charter was limited to twenty years, and during that time no other bank was to be established by Congress. The bill passed the Senate without a division, and the House by a vote of thirty-nine to twenty.

* The following petition, gravely read before the Connecticut legislature, May 18, 1792, whether genuine or a burlesque, indicates the favor in which lotteries were held:

WOODBURY, May 6.

TO THE HONORABLE GENERAL ASSEMBLY:

Worthy gentlemen as you a number of gentlemen—are selected as friends to mankind two hear their complaints and it is two you we look for releif the most of your honners are married and I flatter myself are not enemys two our sex with such favorable thots and the help of my pen I an old maid humly beg your attention a few moments, in the first place I ask hear two inform you what my sittuation has been from a child I was deprived of both my Parants by the time I was six years old a very early age in life I had a sister that took me under her care at the deth of my mother but be fore I was seven years old she was cald out of the World and I left alone I was weekly from a child and had no one two take care of my helth nor two give me an eddication that I could support myself any way by handwork I have had many fits of sickness witch took all I could earn I have studded many years two accomplish myself two make somebody a good Wife and when I done I cant find no one that has currage to try me sence that is out of the question I have been trying in every Lottery this Worthy assembly has seen fit to grant to see if I could not get a prise that if I was sick I need not have two look two the town for relief I hear them every day complaining how expensive the town poor is it is shocking for me two think of being an addition two it I have no parants no husband two look two in distress and old age sins I have jest thought of a way that I may be happy in old age and not be dependent on any one but those that will assist me out of choise now if this thought should meet with the approbation of Honorable assembly I should essteem it a grate blessing it is the priviledge of having Lottery two raise a sum of money sufficient to bild a small hous and get in some business two hundred pounds I think would make me happy it is mortifying to be singled out from all my mates two live alone and much more two have nothing two liv on. O if I was the assembly or had the powers they hav and they were an old maid how much pleasure I should take in making them as happy as it would me if this my potision meet with a favorable reseption it being the first favor that an old maid ever asked of the assembly I can't but hope your honners will take it into consideration if you gentlemen should think the sum mentioned two large I will thankfully except of any smaller sum that you please two allow it is jenerally said that we old maids are not good inhabitants but if you will put it in my power if I don't show as good a disposition and as free from envy as any married lady you may inflict what punishment you pleas I won't murmur nor complain the above is the humble petision and request of your obedient and humble sarvant

MARY-ANN WATROUS.

The prestige of Hamilton, derived from the success of the other parts of the plan for establishing public credit, and the existing speculative temper of the people, caused the project to be received with great favor. The whole stock was taken within a few hours after the books were opened, July, 1791.

The attention of the country was thus directed to banking at a time when its nominal wealth having been greatly increased, the conditions were favorable to the development of the business. Other banks were speedily organized. The Connecticut Legislature chartered three banks in the following year—1792—which owe their birth, at that time, to the success of the funding scheme, and the establishment of the Bank of the United States, fruits of the genius of Alexander Hamilton.

CHAPTER LVI.

CURRENCY AND BANKING IN CONNECTICUT—Continued.

THE Connecticut *Courant* began the publication in January, 1792, of a series of articles, by "A Patriot," "on the means of improving the natural advantages of Connecticut and promoting the prosperity of its inhabitants." In article No. 4, published January 23rd, the writer says, "Another means of advancing the wholesale business of Hartford is the establishment of a bank. It is doubted, by some people, whether the business of a bank, in this city, would much more than defray the expense of managing it. Others have doubted whether a sufficient capital can be obtained for the purpose. But this last doubt is not well founded, as it is ascertained that a sufficient subscription might be immediately filled, or what the best judges suppose would be a sufficient capital stock." In the course of his essay, he denounces barter as "the father of fraud and the instrument of knavery." February 27th, appeared the following notice: "It is proposed to petition the honorable legislature of this state at their session in May next, for the establishing of a bank in this city. All merchants and others that are disposed to forward this business are requested to meet at Mr. David Bull's this evening at six o'clock." This notice had no name attached. Another meeting was held March 6th. April 30th, the subscribers to the Bank of Hartford were requested to meet at Mr. Bull's and "desired to take notice that the first deposit is to be made on Thursday next." No record of the doings of these meetings is known to exist, and the articles of association adopted bear no date. They were agreed upon evidently, at some time or times between February 27th and April 30th, 1792. John Caldwell, Barnabas Dean and John Morgan, were appointed a committee to open the books for subscriptions, on the first Thursday of May, at the state house, at ten o'clock in the forenoon, and an installment of \$20 per share was required at the time of subscribing. John Trumbull, the author of *McFingal*, who represented the town of Hartford in the legislature that year, and who was afterwards a judge of the Supreme Court of Errors; Chauncey Goodrich, afterwards member of Congress, United States senator and lieutenant-governor; and Noah Webster, the eminent lexicographer, were appointed a committee to secure an act of incorporation from the legislature. The charter was granted at the May session, 1792. Its provisions were as follows:

The subscribers to the Hartford Bank were made a corporation and body-politic

by the name and style of the "President, directors and company of the Hartford Bank."

The capital stock was fixed at \$100,000, divided into two hundred and fifty shares of \$400 each. No person could hold more than thirty shares. The capital stock might be enlarged, if required, by "the increase of trade," to \$500,000. The shares were made \$400 each in imitation of the Bank of the United States, which, in turn followed the awkward model of the Bank of North America. With these examples before them, the normal size of a bank share doubtless seemed to be settled beyond revision by the organizers of the new institution. In May, 1817, the stockholders were authorized to make the shares \$100 each.

Nine directors were to be chosen annually and not more than three-fourths of the directors in office exclusive of the president, who might be continuously re-elected, were to be eligible as directors the next succeeding year. Hamilton had argued in favor of the principle of rotation in directors, saying that "by lessening the danger of combinations among the directors to make the institution subservient to party views, or to the accommodation, preferably, of any particular set of men, it will render the public confidence more firm, stable and unqualified."

Stockholders were to be entitled to vote according to their respective number of shares in the following proportions, viz., for one share and not more than two shares, one vote; for every two shares above two shares and not exceeding ten shares one vote; for every four shares above ten shares one vote; but no person was to be entitled to a greater number than ten votes. [The foregoing provision had been advocated by Hamilton on this ground, viz., "A vote for each share renders a combination between a few principal stockholders to monopolize the power and benefit of the bank too easy. An equal vote to each stockholder, however great or small his interest in the institution, allows not that degree of weight to large stockholders which it is reasonable they should have and which perhaps their security and that of the bank require. A prudent mean is to be preferred." This provision and that limiting stockholders to thirty shares were repealed in 1796.] No director except the president was to be entitled to any emoluments unless ordered by the stockholders at a general meeting.

The directors were required to exhibit annually to the stockholders a statement of the debts remaining unpaid after the expiration of the original credits, and the surplus of profit, if any, after deducting expenses, losses and dividends. The corporation was prohibited from taking interest at a greater rate than six per cent. per annum.

It was authorized to issue notes or bills payable on demand to an amount not exceeding in the whole fifty per cent. over and above the capital stock, *and beyond the amount of moneys actually deposited for safe keeping*. Subscriptions, exclusive of the first installment already paid, were payable, thirty per cent. on the first Monday of July next, fifteen per cent. on the first day of September next, twenty-five per cent. on the first day of March, 1793, and twenty-five per cent. on the first day of September, 1793; but the directors were authorized, if they judged it expedient, to suspend for such time as they might judge proper, the payment of the last two installments.

The state of Connecticut reserved the right of subscribing forty shares in addition to the two hundred and fifty shares already authorized, and in that case of appointing two additional directors; if the state should subscribe for no more than twenty shares, it was to appoint one director only. The remaining provisions of the charter were merely formal and do not require special notice. The right to amend

or revoke it was not reserved to the General Assembly, and no general statements to the public, any public officer, or the General Assembly were required. It will be observed that the amount of notes in circulation was to be determined, in part, by the amount of deposits; the greater the amount of one form of debt, the greater might be the amount of another form of the same. This strange provision, which was not peculiar to Connecticut legislation, shows the crudity of the ideas of banking then prevailing.

No person or firm subscribed for more than ten shares of the stock. The first meeting of the stockholders was held June 14, 1792. Oliver Ellsworth, at that time United States senator and subsequently chief justice of the United States, one of the wealthiest men in the state, presided; Jeremiah Wadsworth, John Caldwell, John Morgan, George Phillips, Barnabas Dean, Timothy Burr, James Watson, Caleb Bull, and Ephraim Root were elected directors. At a meeting of the directors held June 16th, John Caldwell was elected president and Hezekiah Merrill was appointed cashier. Major Caldwell was a West India merchant and distiller, of the highest commercial and social standing. He was the commander of the horse guards, first selectman, and often represented the town in the legislature. Dr. Merrill had formerly been an "Apothecary and bookseller, at the sign of the Unicorn and Mortar, a few rods south of the court-house." At the time when the bank went into operation, he was probably connected in business with S. W. Pomeroy & Co., dealers in public securities.

Colonel Wadsworth was the local Astor. De Warville, in his "*Nouveau voyage dans les Etats-Unis, fait en 1787*," estimates his fortune at from sixty to eighty thousand pounds sterling. A quarter of this sum would have entitled the owner to such consideration as a millionaire does not enjoy at the present day. He had been engaged in the West India trade and had been commissary-general of the Revolutionary army. He had also been a large stockholder in the Bank of North America, at Philadelphia, and president of the Bank of New York, 1785-6. At this time, he was a member of Congress, and a director in the Bank of the United States. No note of such action appears on the bank records, but, according to the *Connecticut Gazette*, printed at New London, he was first chosen president and declined. John Morgan was, also, a prominent merchant. He was one of the projectors of the great bridge across the Connecticut, and opened the street leading to the bridge, bearing his name. Barnabas Dean was a brother of Silas Dean, the American commissioner to France. Although the wealth and respectability of Hartford and vicinity had united in establishing the bank, a long time elapsed before its bills were received without hesitation by the people of the neighboring country. The painful lessons of the continental and state money eras had not passed out of remembrance. They preferred the chink of cumbrous silver, which they knew to be good, to the rattle of the more convenient paper which, although issued under the sanction and with the approval of most trustworthy persons, might be liable, notwithstanding, to unforeseen accidents, and lose a part or the whole of its purchasing power like the paper money which preceded it. The bank went cautiously at first and dared to issue bills only to the amount of the coin actually on hand. Persons who hesitated to take them when offered, were told to go to the bank and get the cash. To impress such visitors, the bank placed its strong box in a conspicuous position, with the lid open, so that the heaps of silver within might be visible. The first cash-box was of wrought iron, less than three feet long, and less than two feet in depth and width, opened at the top like a chest, and had a keyhole large enough to receive the fingers of a small person. The office was in the building next north of the Centre church. The salary of the cashier for the first year, was fixed at five hundred dollars. The president

was authorized to issue notes of one dollar, two, five, eight, ten, twenty, fifty, and one hundred dollars, payable on demand, and post notes after the following form :—

The president, Directors and company of Hartford Bank promise to pay ———, days after date, to ———, or his order ——— dollars. Hartford, the — day of ———, 1792.
Cash'r. Pres't.

The notes were probably printed at the bank. It was a rule, early adopted, that notes offered for discount must be executed in the city of Hartford, and not have more than forty-five days to run. After a few months' trial of this rule, the limit was extended to sixty days, and notes executed in any city in this state, and payable at the Hartford Bank, with one indorser, resident in the city of Hartford, might be received for discount. Early indorsers were not always as prompt in attending to their obligations as seemed desirable to the directors, and May 17, 1798, they voted that, "In every instance where a note remains unpaid (the three days of grace having expired), that it shall be the duty of the cashier to give immediate notice to the indorser, and in case the same is not paid within twenty-four hours after such notice, that the note be put immediately in suit." Any person suffering his note to be sued was to have his name posted in the bank. It was also a rule, "That payments made at the bank are never subject to revision; errors, if any, must be discovered before the money is taken from the counter." If all the dividends paid were entered on the directors' records, the business was not profitable in the beginning. Those recorded are at the rates of two, three and three and one-half per cent. half yearly. From the increase of trade, it was deemed necessary and expedient to enlarge the capital stock by the sum of \$60,000 in 1796. The capital was increased by successive enlargements until, in 1816, it reached \$1,212,800, of which \$1,000,000 was transferable, and \$212,800 nontransferable. The present capital of the Hartford National Bank is \$1,200,000.

During the early years of the Hartford Bank, the belief prevailed in some quarters that its loans were not fairly distributed among applicants, and that the directors themselves enjoyed the use of more than their fair share of the capital of the bank. It was so small that, at least, but few persons could be accommodated with loans; and such a belief, whether justified or not, would find ready acceptance among the disappointed, who would doubtless constitute a majority of the people. The story was current, that one day Judge Ellsworth, who had been elected a director, sat at the board when notes were offered for discount by directors, who had mutually endorsed for one another. Against his wish, the notes were approved, whereupon he took his hat, and, with the remark, "Mr. President, there is a great deal of hollow ground in Hartford," departed for Windsor.

Major Caldwell was unfortunate in business in his later years, and in 1819 he was succeeded in the presidency by Gen. Nathaniel Terry, a son-in-law of Colonel Wadsworth, and a prominent lawyer, who was often chosen to fill public stations. He was not a good bank president, but such was his popularity in Farmington, where many stockholders lived, that he was able to retain office until 1828, when Governor Joseph Trumbull was made president. D. F. Robinson was the next incumbent of the office, and was elected November 8, 1839. He was followed in 1853 by the late Henry A. Perkins, who had earned promotion by twenty-five years' faithful service as cashier. He died in 1874, having been connected with the bank forty-six years. His administration of its affairs was distinguished by entire devotion to its interests, and a thorough knowledge of details in every department; and his relations

to the public by a mathematical directness of statement that left no doubt as to his meaning.

His judgment in all pecuniary concerns was highly prized. No bank officer was held in greater reputation than he, when living, and his memory now holds the highest place of honor among men of the calling to which his life was given.

Col. James Bolter was chosen to fill the place made vacant by the death of Mr. Perkins in July, 1874.

On the resignation of Dr. Merrill in 1799, Normand Knox was appointed cashier. He resigned in 1814 to accept the presidency of the Phoenix Bank. Horace Burr was appointed to the vacancy. He held office until 1828. During his term of service, a defalcation by the bookkeeper took place, and Mr. Burr was at first suspected of complicity in it; but, July 26, 1828, the directors unanimously voted that, after an examination of the books and papers relating to the defalcation, they found no reason to believe that Mr. Burr was in any manner participating therein, or accessory thereto. H. A. Perkins became cashier in 1828. His successors and the dates of their respective elections have been as follows:

Andrew G. Hammond, October 12, 1853; George Ripley, May 18, 1857; James Bolter, June 14, 1860; William S. Bridgman, July 6, 1874.

A meeting of leading citizens of New London and Norwich was held at New London, February 10, 1792, at which a plan was agreed upon for instituting a bank, which it was at first proposed to call the "Bank of New London and Norwich," but on further consideration, it was named the "Union Bank, in New London." A committee was appointed to obtain subscriptions for stock to the amount of \$100,000. It was directed to invite subscriptions from all persons whose property, interest, business, or situation should, in the opinion of the committee, more particularly entitle them to become subscribers, but "to prevent subscriptions on speculation, by persons not intending to permanently continue stockholders," they were authorized to reject all subscriptions that appeared to be made in that way. The *Connecticut Gazette* (New London), says, the shares assigned to New London were taken in a few hours. A meeting termed on the record a stockholder's meeting, being the first such meeting known to have been called, was held on the 5th of March, at which it appeared that the full amount of stock required had been subscribed. Richard Law, formerly a member of Congress, and the judge of the United States District Court for Connecticut, was chosen moderator, and William Leffingwell, clerk. The following persons were elected to be directors of the bank when chartered, viz.: Jedidiah Huntington, Joshua Lathrop, Marvin Wait, Joseph Howland, Guy Richards, Joseph Williams, Samuel Wheat, William Stewart, Daniel L. Coit, Edward Hallam, Samuel Woodbridge, Joseph Perkins and George Phillips. The directors appointed Jedidiah Huntington, president, and John Hallam, cashier. General Huntington was an officer of the Army of the Revolution, who served through the whole war. After 1777 he held the rank of brigadier-general and at the close of the war he received the brevet rank of major-general. He was treasurer of Connecticut in 1788. Washington made him, in 1789, collector of the port of New London. His position was one of great honor and profit.

The *Gazette* thought it worth while to reassure timorous people who anticipated evil results from the institution of banks in the state, April 5, 1792, by saying: "Although the success of the business of one, two, or all of them is problematical, yet the experiment may be harmless; the multiplication will in some sort increase the security of the public; they will be the more circumspect in their conduct and not extend

their credit too far, lest a run upon them, to which a competition will expose them, should injure them; as each company will be confined to a narrow circle, its continuance will be of the less consequence, and its affairs easily brought to a close." The legislature granted a charter to "The President, Directors, and Company of the Union Bank, in New London," at the May session, 1792. The capital stock was to consist of not less than \$50,000 nor more than \$100,000, divided into shares of \$100 each. The subscriptions were payable in eight equal parts, at the distance of three calendar months from each other. The other provisions of the charter were in general similar to those of the charter of the Hartford bank, except that all directors might hold office continuously from year to year, and the state did not reserve the right of subscription to the stock. At the first meeting of the directors after the passage of the act of incorporation, held June 5th, the president was authorized to provide an office, seal, desk, scales and weights, and the necessary books; also, to procure from Philadelphia sixteen reams of paper, a paper mould and plates for bank-notes. It was directed that gold should be received and paid out at the rate of eighty-nine cents per pennyweight. Notes to be discounted were required to have two witnesses to the signature of the maker. No loan was to be made for a longer period than sixty days. Payments by the bank were required to be examined at the time, as no deficiency suggested afterwards would be admitted. In August it was voted "that for the purpose of furnishing change, then much wanted in common dealings, there be issued by the bank small bills of the denominations of one penny, two pence, and three pence to the amount of £576 lawful money." Subsequently other denominations from four to twelve pence in value were issued.

At a later period in the same year, the cashier was directed to send to Dr. Joshua Lathrop, a director living at Norwich, \$500 in specie to be used by him in redeeming the notes of the bank in that town, "the same being with a view to the convenience of such persons as should be under the necessity of so exchanging them, and, also, to establishing the credit of the notes in that quarter." In October, 1794, the directors voted, that, having heard that there was "a large amount of this bank's paper in the Union Bank, Boston," and that it was inconvenient to those holding it, "the cashier be directed to send about \$1,000 to Boston for the redemption of such paper." In the following December he was directed to send there for the same purpose about \$1,400 more. Nothing further is known as to any difficulty in redeeming notes before April, 1796, when a letter was received from David Green, an officer, probably president of the Union Bank, Boston, in which he said that the banks in that town had experienced so much inconvenience from the increase of foreign bills, that they had agreed not to receive the bills of any bank out of Boston, except the bank of the United States, after the first of May ensuing, that they regretted extremely the operation of the rule in the case of the Union Bank, New London, for if the other banks had been as attentive to the redeeming of their bills as that bank had been, no such regulation would have been necessary. He added that the board had been very desirous of making the New London Bank an exception to the rule, but no practicable mode of doing so had occurred to them: they would be ready, however, to embrace any opportunity that might offer of accommodating the bank or making any arrangement with it that should be mutually advantageous. A correspondence followed, which resulted in the appointment of Mr. Green to be agent for the redemption of the bills of the bank in Boston, he being furnished with funds in advance for the purpose. In the account of these transactions may be seen the beginnings of the system of redemption of New England bank-notes, afterwards so perfectly developed and rigorously enforced, and known as the "Suffolk system." The business of

the Union Bank seems to have been reasonably prosperous from the outset. The first half-yearly dividend was at the rate of two per cent.

The successors of Gen. Huntington in the office of president have been: George Hallam, 1818-1825; W. P. Cleveland, 1825-1834; Jonathan Starr, 1834-1852; Robert Coit, 1852-1858; W. H. Chapman, 1858-1893; Robert Coit, 1893-. Following John Hallam as cashier came Robert Hallam, 1800-1827; Ebenezer Learned, 1827-1836; Joseph C. Sistare, 1836-1851; Charles G. Sistare, 1851-1860; Leonard C. Learned, 1860-1885; J. Lawrence Chew, 1885-.

The General Assembly, at its October session, 1792, passed an act incorporating the New Haven Bank. Its capital stock was to consist of \$100,000, divided into five hundred shares of \$200 each. For some reason—possibly on account of the difficulty of raising the amount of capital required—no organization was effected until the charter had been amended by the act of October, 1795, authorizing the bank to start with a subscribed capital of \$50,000, and providing for an enlargement of the capital, should the "increase of trade" require it, to an amount not exceeding \$400,000. The only provision of the original charter, or its amendment, differing from the provisions of the bank charters previously granted, sufficiently to require notice, was a clause declaring the charter alterable or revocable at the pleasure of the General Assembly. Books of subscription were opened on the 9th of December, 1795, at the tavern of Ebenezer Parmalee, and four hundred shares were subscribed by eighty-three persons. The first meeting of the stockholders was held December 22, 1795. Isaac Beers was chosen chairman, and Simeon Baldwin teller, to count the votes cast for directors. David Austin, Isaac Beers, Elias Shipman, Elizur Goodrich, Joseph Drake, Timothy Phelps, John Nicoll, Thaddeus Beecher and Stephen Alling were elected directors. David Austin was afterward chosen president, and William Lyon cashier. On the 29th of December, Mr. Lyon was sent to Philadelphia, "to obtain and carefully superintend and inspect while making, the mould, and box and water letters necessary for the bank, and the paper for bills," etc. For the safe keeping of the cash, he bought an iron box, about half the size of an ordinary half-bushel measure, which is still in existence. The office of the bank was established in the house of Mr. Lyon, which stood on Chapel street, between Orange and State streets, where the "Lyon building" now stands. The bank paid Mr. Lyon a salary of \$500; and "£12 a year for the use of that part of his house that is given up to the bank." The expense of fitting it up was £11 9s. 7d. It was open from ten o'clock A.M. to one o'clock P.M. and from three to four o'clock P.M. every day except Sundays, Christmas, Good Friday, Fourth of July, commencement in Yale College, Thanksgiving, fast days and Saturday afternoons. To obtain a discount, "a note expressing the sum wanted, and having an indorser, must be enclosed in a letter, addressed to the cashier, by the person requesting the discount, executed in the city of New Haven, and drawer and indorser resident in the city, and not more than thirty days to run." On discount days the board met at five o'clock P.M. January 30, 1797, it was voted "that if the payer of a note neglect his duty, and a protest be entered, the indorser shall be allowed four days to pay the same, and in case of his or their neglect, his credit shall suffer at the bank." The first dividend declared, February 24, 1797, was at the rate of eight per cent., and absorbed all the profits up to that time except \$100, reserved to pay the expenses of putting the bank in operation.

It may be of interest to bank tellers, who are disturbed during what is to them the most serious hour of the day, while attempting to reconcile facts with figures at the close of business, to know that the annoyances to which they are subject are not of modern origin. January 25, 1802, the directors of the New Haven Bank ordered,

"that no person be allowed to do business with the bank, out of bank hours, through the back-door, except a director, the collector of the customs, or his deputy."

David Austin, chosen in 1796, was succeeded in the office of president by Isaac Beers, in 1798; Eneas Munson, Jr., in 1812; Henry Denison, in 1831; Henry Sanford, in 1847, and Wilbur F. Day, in 1869.

William Lyon held the office of cashier until 1814. He kept strict watch over the circulation of the bank. It is related of him that on one occasion, when four one hundred dollar bills had been out for a longer time than he thought proper, he rode to Wallingford to redeem them, having heard that bills of that denomination had been seen in the possession of a citizen of that town. He was followed by Henry R. Pyncheon, who died in 1831. Amos Townsend, who had entered the bank as a clerk in 1825, was chosen to fill the vacancy. He continued in office until 1880, when the infirmities that attend advancing years compelled him, at the age of eighty-two, to decline a re-election, after a term of service lasting fifty-five years. He died July 16, 1885, at the age of eighty-seven.* From his entrance into the bank to Sept., 1865, he was not absent from ill health a single day, and his longest absence from any and all causes was three days. The completion of his fiftieth year of continuous service was commemorated by the passage of the following resolutions by the board of directors:—

Resolved, That we deem it fitting at this time to tender our congratulations to our esteemed friend that his life has been spared to complete a term of office not more remarkable for duration than for unremitting, conscientious and intelligent discharge of duty; and for active and fruitful exertions in the cause of religion and humanity.

Resolved, That in the opinion of this board, the long-continued prosperity of this bank, uninterrupted even through repeated periods of financial disturbance and panics, is due in no small degree, to the watchfulness, sagacity, and fidelity displayed by Mr. Townsend in his capacity of cashier; and we trust that his valuable services may be continued for years to come, assuring him of our respect and confidence, and of our best wishes for his health and happiness.

Mr. Robert I. Couch, the present incumbent of the office, succeeded Mr. Townsend in 1880.

An act incorporating the Middletown Bank was passed at the October session of the General Assembly, 1795, but no organization was effected under it until, on the 12th of January, 1801, "at a meeting of gentlemen, merchants, traders and others of Middletown," held at Mrs. Sarah Goodwin's tavern, it was "voted that the committee appointed in the charter to establish the Middletown Bank be directed to open a subscription and endeavor to get it filled up." It was also stated that if the whole subscription shall exceed one hundred thousand dollars, an abatement shall be made on those subscriptions which exceed five shares, in proportion to such surplus, provided there shall be no division of shares." When the books were opened, nineteen hundred and ninety-five shares, of one hundred dollars each, were subscribed, and the committee distributed the stock, in accordance with the vote passed at the January meeting. The stockholders met May 1, 1801, at Mrs. Goodwin's tavern for organization. Chauncey Whittelsey presided, Nehemiah Hubbard, Jr., acted as clerk. The directors elected were: Elijah Hubbard, Chauncey Whittelsey, Nehemiah Hubbard, Jr., Samuel Watkinson, Benjamin Williams, Ebenezer Sage, George Hallam, Joseph Hart and Elias Shipman. On the 13th of the same month, the directors made Elijah Hubbard president, and Timothy Southmayd, cashier. Section 3 of the act of incorporation was as follows, viz.: "The capital stock of said

* To the clear memory, at the age of seventy-eight, and obliging courtesy of this venerable man the writer was indebted for many facts which appear in this paper.

bank shall not exceed one hundred thousand dollars, unless a general meeting of the stockholders should hereafter judge the increase of trade to require an addition thereto; in which case a new subscription may be opened for enlarging the capital of said bank to such amount as they deem expedient, not exceeding four hundred thousand dollars. The stockholders in a general meeting may also, at their discretion, order part, not exceeding one-half of the stock, to be vested in the funded debt of the United States, estimating at par that part of the debt which bears an accruing interest of six per cent. per annum.

The first dividend was at the rate of three per cent. and declared in July, 1802.

The subscribers to the Norwich Bank signed articles of association April 19, 1796, for the formation of a bank, the capital of which should consist of not less than seventy-five thousand dollars, nor more than two hundred thousand dollars; to be divided into shares of one hundred dollars each. An act of incorporation was passed at the May session of the General Assembly, in the same year. Its directors were: Joshua Lathrop, Daniel Dunham, Elias Brown, Ebenezer Huntington, Joseph Williams, David Trumbull, Jabez Huntington, Jabez Perkins, Elijah House, Thomas Fanning, James Lanman, Luther Payne and Jonathan Devotion. Ebenezer Huntington was made president, and Hezekiah Perkins, cashier.

The chartering and incorporation of the five banks already named, at Hartford, New London, New Haven, Middletown and Norwich constitute a well-defined period in the history of corporate banking in Connecticut. Ten years elapsed after the prayer of the Norwich petitioners was granted before the General Assembly incorporated another bank.

No one can have failed to perceive that notwithstanding the large nominal increase in the floating capital of the country, resulting from the funding bill, the supply of money—cash—was still scanty. The utmost capital that a union of the chief inhabitants of any city would supply was \$100,000, and in no case was the whole of that sum to be called for in less than a year. New Haven waited three years, and organized only after getting authority to begin with a capital of \$50,000 subscribed, and Middletown let its charter lie dormant for six years. The limited time for which money was lent, and the rigor of the rules established, in which respects the action of the Connecticut banks was in harmony with that of the neighboring states, are evidence of the high value set upon money in hand.

CHAPTER LVII.

CURRENCY AND BANKING IN CONNECTICUT—Continued.



THE speculation in United States securities culminated in 1792. That may be considered as the second act of an exciting drama, in the first act of which the passage of the funding bill was the principal event. Next came into prominence vast operations in western lands. The portions of the public domain which had passed into the hands of particular states were soon transferred to private individuals or companies. Connecticut sold, in 1795, the remainder of its lands lying within its ancient charter limits, on the south shore of Lake Erie, about three millions of acres, for \$1,200,000, and appropriated the avails to a permanent fund for the support of schools. Enticing pictures of

fresh woods and pastures new, needing but the gentlest persuasion to make them yield golden harvests, were about this time spread before the people in newspapers and pamphlets, and the public mind was fascinated. Those who purchased and sold at an early date, or who bought no more than they could pay for and retain without inconvenience, realized large profits, while the later dealers, who purchased and sold on credit, as many did, generally became bankrupts. In the course of buying and selling the chain of debit and credit was extended through a multitude of individuals and involved most of them, when prices at last gave way, the market being glutted, in ruin. Robert Morris was among the sufferers, and passed the later years of his life in prison for debt. In 1795 the legislature of Georgia sold to four companies the pre-emption right to twenty-two millions of acres lying west of the Chattahoochie, for \$500,000. It was called the "Yazoo purchase." The territory was split up into endless divisions and sold to individuals and companies in the Middle States and New England. The next legislature, however, on the ground of corruption, fraud, and the inadequacy of the sum paid, revoked the grant and ordered the original act, authorizing the sale, to be burned, and all the records relating to it to be expunged. This action produced a great shock throughout the country, and, resuming the figure of the drama, the curtain fell on a scene filled with confusion and beggary. Connecticut bore a full share of the common misfortunes, and the prosperity of Middletown was seriously affected by them. It is probable that the delay in the organization of the bank there may be justly attributed to this cause.

The fertile lands newly opened to settlement attracted not only the money of Connecticut, but a large percentage of its inhabitants. The population of Connecticut was at the decennial periods as follows: 1790, 238,141; 1800, 251,002; 1810, 262,042; 1820, 275,202.

The rate of increase from 1790 to 1800 was 5.4 per cent., and less than that of any state except Rhode Island, which was 0.4 per cent.; from 1800 to 1810 it was 4.3 per cent., and smaller than that of any other state; and from 1810 to 1820 it was 5.1 per cent., and less than that of any other state, except Delaware, which was 0.1 per cent. Although no true son of Connecticut can think for a moment of doubting that it was for the interest of society at large that Connecticut habits, laws and institutions, carried by men inured to steady habits of thoughtful industry, should contribute to the judicious development of the new states, the great emigration was naturally a hindrance to the commercial and industrial progress of the mother state.

In the application of capital to banking it lagged far beyond its neighbors. The writer of a pamphlet with the title, "Brief View of the Arguments in Favor of the Establishment of a State Bank" (1805, probably), says: "It is a subject worthy of serious consideration that the amount of banking capital employed in the state of Connecticut, compared with the amount of banking capital employed in the neighboring commercial states, is very far below the proportion which we require for use, and which we might be entitled to expect. That we require a greater amount of bank notes for use than the amount which our own banks can supply, is evident from the great influx of bank notes from other states. And that our own banks supply as great an amount as they can supply with prudence, is also evident, because it would be for their interest to supply more. There are two methods by which the above comparison may be made: by the proportion of our population, or by the proportion of our foreign exports. By both of these methods the banking capital employed in this state is far below the proportion we might expect from comparing the amount with the banking capital employed in the neighboring commercial states. By the proportion of popu-

lation, we might perhaps overrate our claims, since our citizens are not so generally devoted to commercial pursuits as the citizens of some of the neighboring commercial states.

By the proportion of foreign exports, we should perhaps not do justice to our claims, because it is obvious, that situated as we are between two opulent and commercial states, a great part of the produce of our land is exported to foreign markets through the medium of other states. The truth will probably lie between these two modes of comparison. The opulent and respectable state of Massachusetts with a population of five hundred and seventy-four thousand souls, and 8,768,000 value in dollars of annual exports to foreign ports, has twenty-two banking institutions, which possess collectively, a capital of \$8,024,562. The equally respectable state of Connecticut, more productive and more populous in proportion to its extent, with a population of two hundred and fifty-one thousand souls, and annual exports to foreign ports amounting to \$1,248,000, possesses five banks whose united capital is \$595,900. It appears that the population of the state of Connecticut compared with that of Massachusetts is as 43 parts to 100; its foreign exports as 14 to 100; while the amount of its banking capital is but as 7 to 100. By the same scale of comparison, the states of New Hampshire, Rhode Island and New York have extended, with great success, this advantageous branch of business far beyond the state of Connecticut.

The first general law having reference to banks was an act passed in 1802, prohibiting the banks from issuing bills for sums less than one dollar, and forbidding the circulation within the state of bills for such sums issued by any bank whatever.

From the reimbursement by the United States of expenses incurred by Connecticut during the Revolutionary War, the state had in 1803, in stocks and cash, a surplus of over \$400,000. The United States was steadily reducing the amount of the government stock held by the state, by payments. The banks of Hartford, New Haven, and Middletown, offered to "admit the state as stockholders, and receive from the state all the moneys it has now in hand, and also all that it may have accruing from the reimbursement of the capital of its stock of the United States, as fast as the same comes into the treasury of the state, or such part thereof as the state shall choose to subscribe and pay for; the state to be entitled to all profits and dividends which may accrue thereon, in the same manner as the other stockholders of said banks."

In accepting the offer made by these banks, the General Assembly passed an act, conditionally applicable to the other two banks which had not joined in the proposition, which provided that the moneys referred to should be, and other moneys belonging to the state might be subscribed and paid to the banks in proportion to their respective capitals, the state to be entitled to all profits and dividends in the same manner as other stockholders; the right being reserved to withdraw such moneys after six months' notice. The stock thus created, was to be non-transferable and to confer no right to vote in general meetings; but, in case the sum subscribed to any bank should exceed five thousand dollars, the state might appoint a director, with the same powers as other directors. It was also provided that "The comptroller of public accounts shall, after any moneys shall be subscribed and paid to any of the said banks, be furnished from time to time, as often as he may require, not exceeding once a month, with a statement of the amount of the capital stock of such bank, and of the debts due to the same; of the moneys deposited therein, of the notes in circulation, and of the cash in hand, and shall also have the right to inspect such general accounts in the books of the bank, as shall relate to said statement."

This was the first act of the legislature providing any supervision or inspection

of banks by a state officer, and it is to be observed that it was passed, not out of any theory as to the duty of the state with regard to billholders or depositors, but as a measure of security for state investments.

In 1806 the Bridgeport bank was incorporated; the capital stock to be not less than fifty nor more than two hundred thousand dollars. The state of Connecticut could at no time hold a greater amount than one-fifth of the stock, unless with the consent of the directors.

Authority was given the Hartford bank, in 1807, to increase its capital stock by opening books for subscriptions to the amount of fifty thousand dollars in each year. The takers of the new stock were required to pay a premium of four per cent. By the same act the bank was required at all times to permit subscriptions from the funds of schools, ecclesiastical societies, or other incorporations for charitable purposes in the state, without the payment by them of any premium, but such shares were not to be transferable, and might be withdrawn on six months' notice. The act was to be in force when properly accepted by the stockholders of the bank.

At the same session a charter was granted to the New London bank. Its capital might not be less than two hundred thousand dollars, and might be increased to five hundred thousand dollars; and, until this limit was reached, it was made the duty of the directors to open books for subscriptions to the amount of thirty thousand dollars in each year, on which an advance of four per cent. was to be paid. It was also required to receive subscriptions of non-transferable stock from the state, ecclesiastical societies, etc.

The embargo laid on all the ports of the United States, by act of Congress, in 1807, and the non-intercourse acts which followed, were exceedingly disastrous in their effects upon the commercial interests of Connecticut, as may be seen from a statement of the duties received at the port of New London. They fell from \$201,838 in 1807, to \$98,107 in 1808, \$58,417 in 1809 and \$22,343 in 1810. The exports from all the ports of the state were \$1,624,727 in 1807. The next year, 1808, they were \$413,691. Great distress resulted in many places, especially along the seaboard. As a preliminary measure of relief the banks were authorized to issue "post notes payable to order, and at a time subsequent to the issuing of the same, any law to the contrary notwithstanding."

The Derby Fishing Company was incorporated in 1806 for the purpose of prosecuting the cod and other fisheries from the town of Derby. The next year a modification of the charter was obtained, which authorized it to pursue the business of marine insurance, and in 1808, in consequence of the interruption of the business of fishing and marine insurance by the embargo, it was authorized to loan its capital stock and take security therefor. On the strength of this authorization, it entered on the business of banking, and began the issue of notes for circulation. The General Assembly, at its October session, 1808, regarding this action as an abuse of the privileges granted the company, summoned it to appear before them. The company appeared, and after a hearing, it was solemnly "enjoined not to issue any more of said bills." But this was not the end of the matter. The following year, 1809, a petition asking for the establishment of a bank at Derby was presented. The petition was granted and the capital was fixed at not less than one hundred nor more than two hundred thousand dollars, but it was provided that no person a director of the Derby Fishing Company, should be eligible as a director of the bank, and that "no corporations, or bodies politic, other than ecclesiastical societies or corporations for charitable purposes" (thus excluding the fishing company) should be allowed to hold stock. There was also added a provision, which here occurs for the first time

in Connecticut legislation, requiring the bank to lay before the General Assembly, annually, a statement of its affairs. In May, 1810, the Derby Bank was excused from making a report, because it had been in operation but a few days; and in 1812 the clause requiring annual statements was repealed, and the fishing company was permitted to purchase and hold shares.

The Eagle Bank at New Haven, with a capital of five hundred thousand dollars, and authority to increase to seven hundred and fifty thousand dollars, was chartered in 1811. It was not required to report to the General Assembly.

A renewal of the charter of the Bank of the United States, which ran out in 1811, was asked for from the Eleventh Congress. It was urged that, in the present disturbed condition of the business of the country, growing out of its relations to England and France, the withdrawal of the large proportion of the capital owned by foreigners would be attended by serious consequences, and that the effect of the attempt to collect at once the bank loans would wreck public and private credit, and produce "an awful scene of destruction, the consequences of which elude the power of calculation." Although the renewal was not strictly a party question, many of the Democrats, among whom was Mr. Gallatin, the Secretary of the Treasury, being in favor of granting it, and notwithstanding an offer of a bonus of \$1,250,000, Congress refused to grant any extension whatever, and the bank was discontinued. The stockholders were paid eighty-eight per cent. during 1812, and subsequently, at intervals, down to 1834, twenty-one per cent., making in all one hundred and nine per cent. No serious effects, directly traceable to the discontinuance of the bank, seem to have followed. The consequences, however, may have been veiled by the war with Great Britain, into which the country was shortly plunged.

War was declared against Great Britain in June, 1812. The declaration was based on the impressment of American seamen and unjustifiable interference with the commerce of America by British orders in council. The Republican or Democratic party, which was then in power, had been regarded by the Federalists ever since its birth as perniciously imbued with French principles and disposed to be partial to France in the administration of public affairs. The Federalists, on the other hand, were charged by the Republicans with being partisans of Great Britain and with desiring even to renew political connection with that kingdom. Federalists opposed the war, because the army and navy, as they maintained, were inadequate to successful invasion, and our fortifications were insufficient for the protection of the seaboard. Moreover, said they, "If honor demands a war with England, what opiate lulls that honor to sleep over the wrongs done us by France? On land, robberies, seizures, imprisonments by French authority; at sea, pillage, sinkings and burnings by French orders. These are notorious. Are they unfelt because they are French? Is any alleviation to be found in the correspondence and humiliations of the present minister plenipotentiary at the French Court? In his communications to our government, as before the public, where is the cause for selecting France as the friend of our country and England as the enemy?" John Randolph, an anti-war Republican, wrote to his constituents, May 30, "Before these pages meet your eyes the last republic of the earth will have enlisted under the banners of the tyrant and become a party to his cause. The blood of the American freemen must flow to cement his power, to aid in stifling the last struggles of afflicted and persecuted man; to deliver up into his hands the patriots of Spain and Portugal, to establish his empire over the ocean and over the land that gave our forefathers birth;—to forge our own chains! And yet, my friends, we are told, as we were told in the days of Mr. Adams, 'the finger of Heaven points to war.' Yes, the finger of Heaven *does* point to war. It points to

war, as it points to the mansions of eternal misery and torture ; as a flaming beacon warning us of that vortex which we may not approach, but with certain destruction. It points to desolated Europe, and warns us of the chastisement of those nations who have offended against the justice, and almost beyond the mercy of Heaven. It announces the wrath to come upon those, who, ungrateful for the bounty of Providence, not satisfied with the peace, liberty, security and plenty at home, fly, as it were, into the face of the Most High, and tempt His forbearance." The hard and unpleasant epithets bestowed on the great Napoleon by the Federal editors of the period reveal the state of their minds and seem to have been a source of relief.

Out of \$13,100,200 obtained on loan by the United States during the year 1812, Connecticut is credited with \$6,200. Evidently the war party was neither large nor powerful. It gathered strength, however, to subscribe in 1814 to a loan of \$25,000-000, in the names of Elisha Tracy, Norwich, \$20,000 ; Michael Shepard, Hartford, \$25,000 ; Abraham Bishop, New Haven, \$25,000. Abraham Bishop was a son of that Samuel Bishop whose appointment to the collectorship of New Haven called out in reply to a remonstrance addressed to the President, the often-quoted letter of Mr. Jefferson, containing the passage, "If a due participation in offices is a matter of right, how are vacancies to be obtained? Those by death are few, by resignation none. Can any other mode than that of removal be proposed?"

The first act of the General Assembly, relating to banks, springing from war, or the apprehension of war, was the following :

Whereas, during the prevalence of some epidemical diseases, or the existence of some great national or public calamity, it may become inconvenient and dangerous to many of the banking institutions in this state, to carry on their business at their banking houses, in the towns or places where they are now established,

Resolved, That in either of the cases aforesaid it shall and may be lawful for the president and directors of either of the banks in this state to remove their funds and carry on their ordinary business at any town or place within this state, during the continuance only of such epidemical disease, or national or public calamity.

It will be seen that war was rendered by its exact equivalent, "a great national or public calamity." When New London was threatened, the banks of that city were removed to Norwich.

After approving the Declaration of Independence in 1776, the General Assembly voted : "That the form of civil government in this state shall continue to be as established by charter received from Charles the Second, king of England, so far as an adherence to the same will be consistent with an absolute independence of this state of the crown of Great Britain," etc. The state had no other constitution, and an interesting question in state politics to which public attention was drawn from time to time by the Republican opposition to the party having control of the state administration—the Federalists—was the expediency of calling a convention to frame a constitution. It was held by the opposition that legislative, executive, and judicial powers were not properly defined and separated, and that the state should be districted for the election of members of the council or upper house, and members of Congress, so that voters may better judge of the candidates for their suffrages. The reply of the Federalists was, that these objections were theoretical simply, and that practically the government as organized worked well.

The Congregational or Presbyterian church, which had been established by law, in the early days of the colony, had lost a part of its privileges, but every dissenter, to be relieved from the payment of taxes for the support of that church, was obliged

to lodge with the clerk of the ecclesiastical society in which he lived, a certificate of having joined himself to some other Christian church or congregation. Persons attending on no public worship were taxed for the support of the "standing order." This state of the law was not satisfactory to the Baptists, Methodists, Episcopalians, and other dissenting bodies of Christians; to the Baptists and Methodists, because they were opposed to any union whatever of church and state, and to the Episcopalians because they were opposed to the union of *Presbyterian* church and state. Moreover, the Episcopalians had repeatedly asked a grant of a charter for a college, and had been refused by the Federal majority, the greater part of whom, being Presbyterians, were not disposed to sanction a rival to Yale College. Such, in brief, were some of the active political forces at work in 1814.

For twenty-two years the Hartford bank had been undisputed monarch in all pecuniary concerns of Hartford and the tributary region. It was charged that unlimited power had been harshly used, and ambitious men, who felt that they had not their just share in the administration of money affairs, brought forward a scheme for the establishment of a new institution, larger in capital and intended to be more powerful than the "old bank," as the Hartford bank came afterwards to be familiarly called. In the spring of 1814 petitions were circulated throughout the state asking the General Assembly to grant a charter for a bank with a capital of a million and a half of dollars, and offering, "in conformity to precedents in other states, *to pay into the treasury of this state, for the benefit of the state, the sum of \$60,000, to be collected by a tax or premium of four per cent.,*" etc. The petition actually presented to the General Assembly was altered so as to include a branch at Litchfield, and for the clause quoted above, the following was substituted: "And they offer, in conformity to the precedents in other states, to pay, for the privilege of incorporation herein prayed for, the sum of sixty thousand dollars, etc., to be appropriated—if, in the opinion of your honours it shall be deemed expedient—in such proportions as by your honours may be thought proper, *to the use of the corporation of Yale college, of the medical institution established in the city of New Haven, and to the corporation of the trustees of the fund of the bishop of the Episcopal Church in this state, or to be otherwise disposed of for the use of the state, or for any purpose whatever, which to your honours may seem best.*" Some of the gentlemen who were foremost in the movement for the new bank were Episcopalians, and the modification of the petition was a shrewd device for pledging the Presbyterian majority of the General Assembly to a grant for the bishop's fund, a potion rendered palatable by a simultaneous grant to Yale college; the whole to be accomplished without taking a dollar from the treasury of the state. Votes from the western part of the state were sought for in the proposal to establish a branch at Litchfield.

The directors of the Hartford Bank presented a memorial in opposition, offering to increase their capital stock one million of dollars, and to pay the state a bonus of 5 per cent. on that sum, or \$50,000, if the General Assembly thought it expedient to enlarge the banking capital of the state.

The opponents of an appropriation for the Episcopal Church were also shrewd and wary, and although the petition was passed in the Lower House, it was rejected in the council. A committee of conference was appointed, but before it reported, a bill for a public act, independent of any petition, was introduced, and finally passed both houses. By it, the "President, Directors, and Company of the Phoenix Bank," at Hartford, were incorporated with a capital of \$1,000,000. One-fourth of the capital was to be employed in a branch at Litchfield. A bonus of \$50,000 was to be paid *into the treasury of the state*. Subscriptions were payable in coin, the bills of

any incorporated bank in this state, or the states of New York, Massachusetts or Rhode Island. The state of Connecticut reserved the right to subscribe for shares, in addition to the authorized number, at any time. Ecclesiastical and other societies might also subscribe for additional shares; such shares to be non-transferable.

At the same session the General Assembly appropriated, out of the first moneys paid into the treasury of the state, in pursuance of the act incorporating the Phoenix Bank, \$20,000 to the medical institution of Yale College, but refused to make any further appropriations of the moneys to come from that source. The Episcopalians claimed a portion of the bonus, basing their claim on the language of the petition, which they held was granted in fact, if not in form, by the charter of the bank and the grant to the medical institution.

To this it was replied that the petition had *not* been granted; that according to the act of incorporation, the money was to go into the treasury of the state, and that, moreover, it was a piece of arrogance on the part of the petitioners to undertake to tell the legislature how the money *might* be appropriated.

Thus began, to use a word of the period, a great "contestation," in which each party accused the other of "intrigue and management," and religious intolerance. The one party laid down the doctrine "that the public treasury never should be unlocked for the exclusive benefit of any sect of Christians, however numerous or respectable they may be." To this it was retorted that the practice had not been conformable to the principle; that the medical school, the recipient of an appropriation, was a branch of Yale College, a Presbyterian institution. There was much more bitterness than humor in the controversy; but one writer, on the side of the "standing order," relaxed sufficiently to write: "It is no disparagement to them [the Episcopalians] to say there are very few of them but sometimes have need of a doctor. The digestion of the most healthy is not always good; and the stomach is such a rebellious organ that a gentle dose is now and then necessary to keep it in any sort of order. Let us, then, cherish this seminary of physicians, so useful to all sects, and not trouble ourselves with the visionary notion, that while they prepare genuine medicine only for the Congregationalists, they will administer poisonous and deadly doses to Episcopalians."

The Episcopalians continued to press their claims for a part of the bonus and a college charter until 1816, when, despairing of success with the Federal party, they seceded from it and formed an alliance with the Republicans. The coalition took the name of the "Toleration" party, and nominated for governor, Oliver Wolcott, who had been secretary of the treasury under the Federal administrations of Washington and Adams, but who had actively supported the late war—a war Federalist. Jonathan Ingersoll, a trustee of the bishop's fund, who had heretofore acted with the Federalists, was nominated for lieutenant-governor. The new party obtained complete possession of the executive and legislative branches of the state government in 1818, and early took measures for calling a constitutional convention. A convention was assembled, its labors were ratified by the people, and the present Constitution became the frame of the government of Connecticut in the same year.

The substantial character of the grievances alleged by the opponents of the "standing order," doubtless would have led to a reorganization at a period not remote, if the Phoenix Bank had never seen the light; the occurrence of the political revolution at this particular time, however, ought to be ascribed to the circumstances attending its birth.

The victory was complete, but the Phoenix bonus had long before been expended for general purposes; the trustees of the bishop's fund were, therefore, constrained to

accept, in 1820, in lieu of their claim upon it, a grant of a lottery, with liberty to raise thereby the net sum of \$15,000, after deducting all necessary expenses. The legislature agreed to grant no other lottery within five years. The trustees of the fund assigned the grant to Frederick Lee and John Babcock, from whom they received, February 28, 1826, the sum of \$7,064.88.*

A bonus was made a condition of a bank charter in Connecticut for the first time in the case of the Phoenix Bank. Such a requirement is not justifiable either in theory or practice. The exclusive privilege of issuing notes for circulation is, no doubt, a proper subject for taxation, but the tax should be assessed annually for the public benefit in each year. To take the whole amount at once is not dealing fairly by posterity and operates as a bribe to legislators. Besides, a legislature with a bonus just come into its control is not unlike a man who has met with unhopèd-for good luck ; it is filled with a desire to spend rather than to save, and this disposition is so well known that hungry applicants come in swarms and wrangle for grants as street beggars roll in the dirt for the coin of charitable passengers.

The books of subscription to the Phoenix Bank were opened July 6, 1814, and stock to the amount of \$7,000,000 was taken. Shares to the amount of one million of dollars, the limit of the capital, were distributed by commissioners appointed by the General Assembly, to the subscribers. Normand Knox, the cashier of the Hartford Bank, was made president, and George Beach was chosen cashier. The amount of the capital employed in banking in this state after the establishment of the Phoenix Bank was about \$4,000,000.

Normand Knox continued to hold the office of president until his death, in 1821. His successor was Charles Sigourney, a merchant, who had taken a leading part in obtaining the charter for the organization of the bank. In 1837 an exciting struggle for the presidency took place between Mr. Sigourney and Mr. Beach. The war was conducted by pamphlets and circulars, exhibiting much personal bitterness, but no direct charges of a want of integrity. Each party had a numerous staff of aids engaged in soliciting votes and proxies. They were so nearly equal in strength that on the day of election, September 7, 1837, the arrival or non-arrival of this or that special messenger sent for proxies to a country town would determine the result. The polls were kept open until midnight. The Sigourney ticket, with one exception, Harvey Seymour, was defeated and Mr. Beach became president. John L. Bunce, who entered the Phoenix Bank as a clerk in August, 1820, and left it in April, 1824, to become cashier of the Grafton Bank at Haverhill, New Hampshire, was chosen September 15, 1837, to the office of cashier made vacant by the promotion of Mr. Beach. In 1860 Mr. Beach resigned. John L. Bunce and Henry A. Redfield were chosen respectively president and cashier. John L. Bunce died in 1878, fifty-eight years after the date of his first employment by the bank and at the end of forty-one years of continuous service. He was succeeded as president in 1878 by Mr. Henry A. Redfield, and Mr. Edward M. Bunce was elected cashier. He resigned in 1889, when Mr. Frederick L. Bunce was chosen to the latter office.

The first one-dollar bill signed by Mr. Knox as president has a curious history. It was asked for as a favor by Horace Hayes. He carried it in his pocket for more than forty years, and until the skirt of his coat, containing his pocket-book, was cut away by a pickpocket. It is not known to have been redeemed and may still be in existence, but, at its present age, probably not in active circulation.

The success of the first bank of the United States and the anxiety of its stock-

* Journal of the Convention of the Episcopal Church, 1853.

holders to continue business excited in the Middle States, in 1811-12, a mania for banking that raged with especial violence in Pennsylvania, where the bank of the United States had its principal office. It is thus described in a report made to the Pennsylvania legislature in 1820. The public, and particularly the inhabitants of some of the interior counties, "fancied that much of the prosperity of cities was to be traced to the establishment of banks, and that if that were the case, there was no reason why the country should not participate in their advantages. Such considerations as these, urged on by the desire of accumulating wealth without the dull exercise of labor, engendered a spirit of speculation. It was supposed that *the mere establishment of banks would of itself create capital*, that a bare promise to pay money was money itself, and that a nominal rise of the price of land and commodities, ever attendant upon a plenty of money, was a real increase of substantial wealth. The theory was plausible and too well succeeded." In 1814, a bill authorizing the incorporation of forty-one banking institutions in Pennsylvania with capitals amounting to seventeen millions of dollars was passed, under which, thirty-seven banks, four of which were established at Philadelphia, actually went into operation. There was a wide extension of credit in all forms and prices were high and advancing. The prohibition of the export of specie by law and the British blockade relieved the banks from the necessity of furnishing specie for the payment of foreign balances, until that time operating as a check on expansion, and helped on the movement. The profits realized by merchants who were holders of stocks of goods, wholly or chiefly of foreign origin, added to the show of prosperity. Tea sold at three and four dollars per pound, and sugar at forty cents per pound in specie. Prints brought seventy-five cents per yard, and broadcloth twelve and fifteen dollars per yard at retail.

Neither the bank fever, the war fever, nor the speculative fever took strong hold of Connecticut or the New England states. The gloomy apprehensions with which the war was regarded probably kept down the speculative spirit. It was not altogether absent, however, as the large subscription to the stock of the Phoenix Bank witnesses. While the war continued there was a perceptible advance in Connecticut in the current prices of labor and domestic productions as well as of imported articles. A writer in *The Connecticut Courant* of May 17, 1814, who, it should be stated, was arguing against an increase of banking capital, estimated the advance in the prices of labor and commodities not directly affected by the existence of war at from twenty to thirty per cent. He attributed the advance to the multiplication of banking institutions and bank bills, and the unusual quantity of bank bills and specie drawn from the middle and other states for the payment of balances due to New England, and justly observed that "an increase in quantity of the current money of a country does not increase its value," *i. e.*, its purchasing power. His opinions are worthy of credit, for the predictions of his essay were shortly verified by facts. The conservative conduct of the New England banks and merchants, in resisting expansion, while in other parts of the country the opposite course was the rule, continued to attract specie to New England until, in August and September, 1814, the banks out of New England, with few exceptions, suspended specie payments. Not a bank in Connecticut refused to pay its demand notes in specie. But, after the suspension in other parts of the country, these demand notes were returned for redemption so rapidly that in order to keep the privilege of furnishing their just share of the circulating medium, while the notes of suspended banks were pressing in from neighboring states, they were forced to withdraw the specie notes and furnish substitutes in this form:—

The ——— Bank promise the bearer ——— dollars in notes of the New York banks on demand at the ——— Bank in New York or in specie two years after the war. Receivable on all debts due the bank.

Or this :

The ——— Bank promise to pay the bearer ——— dollars two years after the war. Receivable on all debts due the bank.

Notes were also issued for fractional parts of a dollar:—six and a quarter, ten, twelve and a half, fifteen, twenty, twenty-five and fifty cents, of which the following is a specimen:—

12½	THE PHOENIX BANK.	12½
	Promise the bearer to receive this Bill for	
	TWELVE AND A HALF	12½ CENTS
	in any payment due the bank.	
	Hartford, June 1, 1816.	
	V. Prest.	

The issue of notes for sums less than one dollar by the Phoenix Bank amounted to \$43,400. Of this amount four per cent. were never presented for redemption. The issue of fractional notes was authorized by the General Assembly in October, 1814, and the issue of notes payable two years after the war by any bank to the amount of one-half its capital stock, in January, 1815. A semi-annual return to the General Assembly of the amount of the issues last named was required. The issue of notes for circulation by individuals and corporations, without special authority, attained sufficient importance to require prohibition by the General Assembly in May, 1815. The act prohibiting the issue of such notes was in the form of an act in addition to an earlier act, and repealed some sections of the earlier act, so that for a violation of its provisions an offender should in no case be whipped on the naked body. As is usual, the war was carried on chiefly on credit, and the United States added an infusion—a slight one—of treasury notes to the medley of the circulation. The greater part of them were payable, one year after date, at sundry places named on the face of the notes, with interest at the rate of five and two-fifths per cent. per annum—one and one-half cents per day, reckoning three hundred and sixty days to the year—and were of too large denominations to serve as a current medium of exchange. They were receivable for any debts due to the United States. Other emissions, also bearing five and two-fifths per cent. interest, were payable at no particular time, but were fundable in a six per cent. stock. The small notes, for sums less than \$100, bore no interest. They were fundable in a seven per cent. stock and were at a premium in the common currency of the time, while the large notes were at a discount and accumulated in the hands of banks and capitalists. The amount of treasury notes of all kinds outstanding at any one time did not equal \$20,000,000. They were not a legal tender, and their circulation depended on the option of buyers and sellers, debtors and creditors. In the absence of special agreement, contracts in Connecticut were understood to be for local bank notes, payable in New York bills, or two years after the war. In October, 1814, specie was at a premium of eleven per cent.

News of the treaty of peace, signed at Ghent, arrived in February, 1815. It was received throughout the country with enthusiastic rejoicing. In Connecticut, bells were rung, cities were illuminated, and business was suspended to celebrate the happy announcement. Farmer boys chalked "Peace" on the barn-doors and fences, and children in their mothers' arms clapped their hands and added their piping voices

to the universal shout of joy. It was thought that the suspended banks would soon resume, and the premium on specie fell to three or four per cent. for a short time. It was soon found that something more than a cessation of war was necessary to restore the currency of the country to a healthy condition. It was excessive in amount, and foreign goods were pouring into our ports in great quantities, creating a demand for specie, for export. In July the premium on specie had advanced to fifteen per cent. The Connecticut banks were disgusted and held a convention of bank delegates at Middletown, July 7th, to take measures "to persuade or compel the New York banks to resume specie payments at such a period as may be deemed proper." In accordance with the recommendations of this convention representatives of the different banks met in New York on July 19th, but without producing sensible results. The act authorizing the issue of notes payable two years after the war was repealed to go into effect after the first of January, 1816.

The notes of the suspended banks were unequally depreciated in different parts of the United States, and were current only in the region in which they were issued.

Great inconvenience was experienced on this account in making remittances from one part of the country to another. The United States received the local currency in payment of dues to the government, and the administration of the treasury was beset with difficulties arising from this fact. It had money everywhere, but nothing with which to pay its debts in the places where they were due. With a balance of eleven millions in the treasury, it was obliged to borrow \$500,000 to pay the interest due on the public debt at Boston, January 1, 1817. The condition of the circulating medium was unsatisfactory to everybody, except money-brokers, and as a means of bringing it to a uniform value and promoting a return to specie payments, a second bank of the United States was sanctioned by Congress in 1816.

The capital was fixed at \$35,000,000, divided into shares of \$100 each. The United States took seven millions of the stock; the remainder, twenty-eight millions, was open to public subscription. The subscription of the United States was payable in United States five-per-cent. stock. One-fourth of the public subscription was payable in coin and three-fourths in United States stock or coin. The management was confided to a board of twenty-five directors, five of whom were to be appointed by the President with the advice and consent of the Senate, and twenty of whom were to be elected by the stockholders. The bank was prohibited from contracting debts to an amount exceeding \$35,000,000 over and above the debt or debts due for deposits. Branches might be established in any state in which the directors might see fit, to be managed by a sub-board of directors, elected by the chief board. Its bills were receivable in all payments to the United States. It was required to give the necessary facilities of transferring the public funds from place to place, without charging commissions, or claiming allowance of difference of exchange. The public money was to be deposited with the bank in all places where it had offices, unless the Secretary of the Treasury should otherwise order, in which case he was to lay before Congress immediately his reasons for such order. It was prohibited from suspending specie payments and required to pay a bonus of \$1,500,000. The continuance of the charter was limited to March 3, 1836. New Haven, Hartford, and Middletown struggled for the Connecticut branch, which the latter city obtained. By the terms of the charter the bank was to go into operation January 1, 1817.

Earnest efforts were made by the treasury department to persuade the state banks to resume when the bank of the United States should commence business. The state banks had on deposit more than \$11,000,000 of public money, and the estimated receipts for the year 1817 considerably exceeded the estimated expenditures

for the same period. The treasury department offered to leave this amount with the state banks until the 1st of July, unless the receipts should not be equal to the expenditures, and promised that after that time it should be gradually drawn, only as the public service might require, provided the banks would agree to resume. This proposition was declined.

The banks being state institutions, Congress could legislate only indirectly, and passed a resolution requiring all dues to the United States, after the 20th of February, 1817, to be collected either in the "legal currency of the United States"—gold or silver—"or in treasury notes, notes of the Bank of the United States, or in notes of banks payable and paid on demand in specie." Moved by this gentle compulsion, a convention representing the banks of Virginia, Baltimore, Philadelphia and New York agreed with the Bank of the United States, February 1st, to resume specie payments on the 20th of the same month, on condition that the Bank of the United States would not call for the balances transferred to it by the treasury department until after the 1st of July, and that it would not call for the payment of any other balances due from the banks of the places named until it should have discounted for individuals other than those having duties to pay, to the amount of \$2,000,000 in New York, \$2,000,000 in Philadelphia, \$1,500,000 in Baltimore, and \$500,000 in Virginia. The Bank of the United States thus engaged to extend its credit dealings as the other banks contracted theirs, and specie payments were nominally resumed without contraction on the appointed day. But the currency was still redundant, and in spite of the efforts of the Bank of the United States, which imported upwards of \$7,000,000 specie in 1817-18, at a cost of over \$500,000, it was found impracticable to maintain an adequate stock of specie until the bank changed its policy and began to contract. Since resumption the convertibility of bank-notes into specie had been rather nominal than real in the larger portion of the Union. On the part of the banks mutual weakness had produced mutual forbearance, and among a people heavily in debt public opinion was against demanding specie of the banks, which they could pay, if at all, only through a curtailment of discounts.

The evil day had been long postponed, and the new policy was adopted only as an escape from bankruptcy. As an additional measure of protection the parent bank and the branches declined to receive on deposit United States bank-notes issued by other offices than their own. Contraction by the Bank of the United States made necessary contraction by the state banks. According to an estimate made by W. H. Crawford, secretary of the treasury, the total circulation—gold, silver and bank-notes—amounted, in 1813, to \$70,000,000; in 1815 to \$110,000,000, and this amount was probably augmented in 1816. At the close of 1819 he estimated, upon data "believed to be substantially correct," the total circulation to have been reduced to \$45,000,000. A reduction of fifty-nine per cent. in three years, accompanied by other contractions of credit, could not fail to produce general and severe distress, which was felt in New England, however, to a much less degree than in other parts of the country. Some of the effects of the crisis of 1819 are set forth in Niles's *Weekly Register* as follows:

"From all parts of our country we hear of severe pressure on men in business, a general stagnation in trade, a large reduction in the price of staple articles. Real property is rapidly depreciating in its nominal value, and its rents or profits are exceedingly diminishing. Many highly respectable traders have become bankrupts, and it is agreed that many others must 'go;' the banks are refusing their customary accommodations; confidence among merchants is shaken, and three per cent. per month is offered for the discount of promissory notes which a little while ago were considered as good as 'old gold,' and whose makers have not since suffered any losses to render their notes less valuable than heretofore."

In another number he says of the failures:—

“So extensive were these among the merchants of the cities east of Baltimore, that it seemed to be disreputable to stop payment for less than \$100,000; the fashionable amount was from two to three hundred thousand dollars, and the tip-top quality, the support of whose families had cost them from eight to twelve thousand dollars a year, were honored with an amount of debt exceeding five hundred thousand dollars, and nearly as much as a million of dollars. The prodigality and waste of some of these were almost beyond belief; we have heard that the furniture of a single parlor possessed by (we cannot say belonging to) one of them cost forty thousand dollars. So it was in all the great cities—dash, dash, dash; venders of tape and bobbins transformed into persons of high blood, and the sons of respectable citizens converted into knaves of rank through speculation and the facilities of the abominable paper system.”

In August, 1819, he writes:—

“It is estimated that there are twenty thousand persons daily seeking work in Philadelphia; in New York ten thousand able-bodied men are said to be wandering about the streets looking for it, and if we add to them the women who desire something to do, the amount cannot be less than twenty thousand; in Baltimore there may be about ten thousand persons in unsteady employment or actually suffering because they cannot get into business. We know several decent men, lately ‘good livers,’ who now subsist on such victuals as two years ago they would not have given their servants in the kitchen.”

Connecticut industry was extensively directed to manufactures during the war. Charters for twenty-six companies, with capitals amounting to \$4,210,000, for the production of cotton and woollen fabrics, were granted by the legislature in four years, beginning with 1812. Many of these companies were obliged to suspend operations after the war ended and the ports were opened.

CHAPTER LVIII.

CURRENCY AND BANKING IN CONNECTICUT—Continued.



UNEMPLOYED capital serves neither its owner nor society. A device for gathering together small sums, which would otherwise lie fallow, so as to form amounts large enough to be available for purposes of industry or commerce, adds the amount of these gatherings to the productive wealth of the country. Savings banks perform precisely this service. Besides, they promote frugality and increase the productive power of the artisan by helping him to become sooner the master of his own labor. Their operation by tending to equalize wealth through an increase of the possessions of the poorest is of great social benefit.

The gentlemen who were led by the success of the savings banks at Boston, to apply for a charter for a similar bank at Hartford in 1819, were the pioneers in this state, of a system of value to the commonwealth past reckoning. By the legislature of 1819 forty-one persons were incorporated by the name and style of “The Society for Savings.” The society was authorized to receive deposits not exceeding two hundred dollars in any one year from any individual; to lend the same *in any manner not inconsistent with the laws of the state*; to divide the income among depositors, in just proportion, with such reasonable deduction as might be chargeable

thereon. (In 1821, it was authorized to invest in bank stock.) Depositors were required to give at least four months' notice before withdrawing deposits. No member of the corporation could be a borrower. An annual report to the General Assembly was required. Michael Bull was authorized to call the first meeting of the corporators. They assembled at the state-house in Hartford, June 9, 1819. James H. Wells acted as moderator, and Isaac Perkins as clerk of the meeting. They chose Daniel Wadsworth, who had succeeded to the wealth and station of his father, Jeremiah Wadsworth, president. Elisha Colt was elected treasurer, and James M. Goodwin, secretary. Twelve vice-presidents and twenty-four trustees were also chosen.

By-law number one, adopted by the trustees, declared that, "The primary objects of the institution are to aid the industrious, economical and worthy, to protect them from the extravagance of the profligate, the snares of the vicious, and to bless them with competency, respectability and happiness."

Other by-laws provided, that the treasurer's office should be open every Wednesday, from two o'clock until five o'clock P.M. That dividends of five per cent. should be paid on all deposits, not less than three dollars, on deposit for three months. That every three years the surplus earnings should be divided. That the board might pay off to any depositor within one month next following any extra dividend, the sum due on his or her deposits. Books were required to be presented on making or withdrawing deposits, and no money could be withdrawn except on the first Wednesdays of June, September, December and March, after notice given one week in advance. Depositors were required to subscribe to the by-laws. The deposits during the first six months amounted to \$4,352.77. For a long time the treasurer carried the bank money in his pocket by day, and put it under his pillow at night. In 1829 the deposits had risen to \$110,520.93, and the office was ordered to be open every day from two until five o'clock P. M.

The amounts of the deposits of the society for savings has increased from year to year, but the increase has been irregular, and the annual statements of the bank furnish an epitome of the monetary history of the region from which its business is drawn. For instance, the deposits amounted in 1824, to \$72,347.25; 1825, to \$90,214.84; 1826, to \$90,750.48.

The year 1825 was a panic year in which the Eagle and Derby Banks failed. The next year business was dull, many people were unemployed, and the deposits did not equal the withdrawals, for the interest earnings must have been greater than the difference between the deposits as stated for the two years last named.

The Savings Bank of New Haven was incorporated in 1820. Its charter was similar to that of the Society for Savings at Hartford. It might receive deposits to the amount of \$500 from any person in one year. Other charters were granted before 1837, as follows: to The Norwich Savings Society, in 1824; The Middletown Savings Bank, in 1825; The Savings Bank of New London, in 1827.

In the spring of 1821, the price of labor was diminishing, the rate of interest was low and business was stagnant. Moved, doubtless by the prevailing feeling of distrust, the General Assembly passed an act requiring the president and the directors of the several banks of the state in which the state had money invested to lodge in the office of the comptroller of public accounts annual statements; and in the following year, "a statement under oath of the cashiers of the several banks of the amount of the capital stock of such banks, and of the debts due to the same; of the moneys remaining on deposit therein, of the notes in circulation, and of the cash on hand, and generally of the state of the bank," was required from the banks of the

state without exception, to be furnished to the comptroller, to be by him laid before the General Assembly.

It is no doubt the business of a government which authorizes corporations to issue notes for circulation as money, which every one is practically obliged to receive, to throw about such notes every safeguard. Down to this time the capable honesty of the managers of the several banks, universally the best citizens of the towns in which they were established, had been the only, nevertheless sufficient, guarantee of the circulating notes. Except during the war of 1812 and shortly after, when notes payable in New York bills, or two years after the war, were issued, bank notes had at all times been convertible into specie on demand. Although, apparently, not directly called for by anything in the preceding conduct of the banks of the state, the act of 1822 was a measure of prudence, and if it had gone farther and provided for a personal inspection of the banks by a public officer the failures of 1825 might have been prevented.

The Stonington Bank, at Stonington, and the Windham County Bank, at Brooklyn, were chartered in 1822. The Windham County Bank was organized July 4th of the year in which its charter was granted. Joseph Eaton was elected president and Adams White cashier. The cashier's salary was fixed at \$600, and there was attached the modest requirement that he give a bond of \$50,000. The capital of the bank was \$100,000. In 1823 the salary was raised to \$700, and "if he shall furnish a horse for the use of the bank, shall have \$50." The use of the horse was for the purpose of carrying the bills of other banks which had been received by him, to Boston, receiving in return the bills of his own bank which had accumulated there. The local belief is that he made the journey on horseback, carrying the money in saddle-bags. In 1824 the Fairfield County Bank at Norwalk received a charter which required it to establish a branch at Danbury. Also the Mechanics' Bank at New Haven was incorporated. It was obliged to subscribe \$100,000 to the stock of the Farmington Canal Company, and, if required by the directors of the canal company, a second sum of \$100,000. The capital stock of the bank, \$500,000, was made, in consideration of this subscription, forever wholly free from taxation. In the same year the General Assembly granted a charter to the Connecticut River Company for the purpose of improving the navigation of the Connecticut river by removing obstructions in the channel and constructing canals and locks. By an amendment, passed in 1825, the company was authorized, as soon as it should have expended \$200,000 in actual improvement of navigation, to assess each stockholder \$50 on each share, the same to be paid over to the Connecticut River Banking Company, therein, after constituted. No action seems to have been taken under the powers granted by the amendment. In 1828, a farther modification of the charter, by resolution, permitted the Connecticut River Company, when it should have expended \$100,000 upon the objects for which it was incorporated, to assess its stockholders \$150 per share to be paid to the banking company. A board of directory for the banking company was chosen in January, 1829, but the bank did not begin business until October of that year. The General Assembly of 1829 empowered the banking company to subscribe \$60,000 to the stock of the river company and declared that, until the tolls collected by the river company should be sufficient to pay a dividend of six per cent. per annum on its stock, the stock of the banking company should be free from taxation. The tolls collected have never been sufficient to pay six per cent. on the stock of the river company, and of late years the river traffic has been so light that they are hardly sufficient to pay the gate-keepers. The company is not without revenue, however, from the rent of water-power on its canal.

It was made a condition of the charter of the Thames Bank, granted in 1825, that the bank should contribute to deepening the channel and removing obstructions in the river from which its name was taken. It was required to buy the stock of the Norwich Channel Company, \$10,000, at twenty cents on the dollar, to expend \$3,000 within two years in improving the navigation of the Thames, and \$500 annually thereafter for the same purpose, or such part of that sum as might be necessary to give a depth of ten feet of water in the channel.

The right was conferred to collect tolls at half the rates allowed by law to the channel company, the same to be applied to reimbursing the bank for sums expended in improving the navigation of the river, the amount paid for the stock of the channel company, and the first three thousand dollars expended, excepted.

The Connecticut branch of the Bank of the United States was transferred from Middletown to Hartford in 1824. The capital assigned to it was \$250,000. It was afterwards increased to \$300,000. Enoch Parsons, a son of Major-General Samuel Holden Parsons, of the army of the Revolution, was president, and J. P. Burnham, cashier. Connecticut owned, July 7, 1823, twenty-three hundred and sixty-one shares of the stock.* It was discovered in October, 1820, that Arthur W. Magill, the cashier at that time, was a defaulter. The defalcation, according to the verdict of the jury, in a suit brought by the Bank of the United States against his bondsmen, amounted, with interest to April 13, 1823, to \$66,548.60.

Before the establishment of redemption agencies, bank-notes were redeemed only at the places where they were issued. A bank-note strayed far from home was uncurrent, and could be turned into current funds, *i. e.*, funds receivable at par at a bank, only at a discount proportioned to the credit of the bank, and the cost of presentation for redemption. At Boston, the discount on Massachusetts bills outside Boston was one per cent., and on the bills of other states much greater. The Suffolk Bank began to deal in uncurrent money in 1819. It offered to allow to country banks, which would deposit with it \$5,000, and such further sums as might be necessary to redeem their bills when presented, the discount at which the bills might be purchased. The bills of country banks, which would not accept this proposition, were sent home for redemption in specie. The plan was not put into full and successful operation until 1824, when a combination of seven Boston banks was formed, which appointed the Suffolk their agent, and the business of forcing the country banks to provide for the redemption of their bills at Boston was pushed. The country banks called the associated banks "The Holy Alliance," and protested against their action. The "Six-Tailed Pasha" was one of the names bestowed upon the Suffolk. In the end the country banks surrendered, and after a time a failure to provide for redeeming its bills at Boston came to be a serious injury to the credit of a country bank. Later the permanent deposit with the Suffolk was reduced to \$2,000, and the bills of New England banks making such deposits were redeemed without discount. Thus Connecticut bank-notes were brought to par all over the country, where the Boston funds were at par. The Suffolk system not only made the New England bank-note a better medium of exchange, but acted as a wholesome check to dangerous expansion of circulation. After a few years its value was recognized, and the system was approved

* Stephen Bulkeley, of Hartford, owned at one time a thousand shares of the stock, and was the largest owner in Connecticut. A good part of his life had been spent on the sea, in command of merchant vessels. He was elected director of the Hartford branch. At the first meeting of the board which he attended, he is said to have remarked: "Gentlemen, I don't know much about these matters, and I shan't trouble you very often, but if you get caught in a gale and want a hand to take in sail, you can depend on me."

by all conservative New England bankers. The Connecticut Bank Commissioners of 1841 said: "This method has been salutary in its influence, and has tended greatly to produce a healthy state in all our Connecticut and New England banks."

A speculative fever which had been raging with increasing violence in England during the preceding years, came to a crisis in 1825. Joint stock companies for all imaginable undertakings had been set up. According to Alison, there were on January 1, 1825, two hundred and seventy-six companies in existence in Great Britain, the subscribed capitals of which were no less than £174,114,000. Twenty millions sterling were subscribed for South American mining projects. The commercial disturbance and the fall in prices in England were soon felt in the United States. There were many mercantile and bank failures and runs on sound banks. Two bank failures took place in Connecticut—the first in the history of the state. One was the result of unwise, reckless management; the other of downright dishonesty.

The Eagle Bank, at New Haven, was the first to succumb. It will be seen that its failure was inevitable; the pressure of 1825, probably, hurried the catastrophe. It had been in existence since 1811, and had stood high in public estimation. Its stock had been a favorite investment for ecclesiastical societies, and corporations for educational and charitable purposes, and its capital amounted to \$623,800. A considerable part of it was held in non-transferable shares. George Hoadley, the president, was ambitious, enterprising, and daring. He had been cashier of the bank till 1817, when, on the resignation of Hon. Simeon Baldwin, he was elected president. He was also mayor of the city. He had made a successful venture for the bank in a subscription to the stock of the Bank of the United States, and this lucky hit raised him to the rank of a skillful financier. His popularity was such that he was able to choose his own directors, and thus he became the sole and untrammelled manager of the institution. He made enormous advances on worthless securities, or on no security whatever to single individuals and firms. In a report made to the legislature in 1828, "it was stated that \$1,451,507, were owing to the bank from four individuals, viz.: from J. & D. Hinsdale, \$530,466.50; from W. C. Holly, \$236,779.47; and from N. Dexter and W. C. Holly, conjointly, \$568,801.98."* John and Daniel Hinsdale were in business at Middletown. The advances to them were generally made on so-called business paper of the makers of which little or nothing was known. Norman Dexter, of New Haven, who would hardly have been counted good for a thousand dollars, was entrusted with immense sums. To supply the funds rendered necessary by this reckless course, agents were employed to give the bills of the bank forced and distant circulation. During the twelve months next preceding the failure, and after it had become hopelessly insolvent, the bank made liberal dividends and built a costly banking-house. While this course was pursued to blind the public to its real condition and sustain its credit, a wild attempt was made to retrieve its fortunes by embarking in immense cotton speculations, buying in Charlestown and shipping to Europe. The money for this purpose was raised by an issue of post-notes, which were sold at startling rates. The public mind was in a sensitive state from failures elsewhere and took alarm, and the bank was forced to suspend in September, 1825.

A committee of investigation made the following report to the stockholders of the condition of the bank, October 26, 1825:

* Short History of Paper Money and Banking. W. M. Gouge.

ASSETS.		LIABILITIES.	
Bills and notes on personal security estimated good	\$233,681 87	Capital stock	\$623,800 00
Bills and notes secured by mortgage	67,000 00	Circulating notes, on demand	430,607 00
Bills and notes and other indebtedness, estimated doubtful	1,604,439 77	Post notes	732,630 00
Bills and notes, estimated bad	51,908 20	Amount in suit, Lynde Catlin, plaintiff	91,762 41
Real estate, taken for debt	11,160 44	Due Savings Bank	84,990 53
Cash paid for banking-house and lot	10,945 87	Due other banks	12,615 65
Specie and notes of other banks	37,489 47	Due depositors	43,167 04
Amount due from Union Bank and sundry persons, holders of Eagle notes	84,904 19	Deposited to apply on notes	46,149 46
Due from other banks	10,160 28	Dividends unpaid	3,039 50
Advanced by G. Hoadley, president, for 222 shares of Eagle Bank and for other purposes	25,046 85	Surplus	66,062 51
Expenses	1,980 41		
Overdrafts	1,106 75		
Total	\$2,139,824 10	* Total	\$2,139,824 10

The legislature of 1826 suspended the charter of the Eagle Bank and authorized the stockholders to appoint a committee to wind up its affairs under the direction of the Superior Court. Creditors realized but a small percentage of their claims. The holders of the non-transferable stock claimed the right to withdraw their capital after the failure. But by the Supreme Court, in the case of "the United Society against the president, directors and company of the Eagle Bank of New Haven:"—

"Where an ecclesiastical society had subscribed for shares in the Eagle Bank, by virtue of the provision for such subscription in the charter of the bank; the bank afterwards became insolvent; and such society thereupon gave due notice of its intention to withdraw the shares so subscribed; it was held, that such society, by virtue of its subscription, became a stockholder in the bank, and part of the corporation, and consequently after the insolvency of the bank, was incapable of withdrawing its shares, or of recovering the amount as a debt against the bank." (7 Conn. Rep. 456.)

The Derby Bank, chartered in 1809, was at first organized for the purpose of carrying on the business of banking in a legitimate manner. The officers were William Leffingwell, president, and John Fitch, cashier, men worthy of all confidence. But the business at Derby did not prove profitable and, after some years, the bank was wound up and the capital divided among the stockholders. The charter lay dormant until about 1824 or 1825, when it passed into the hands of some persons in the city of New York, who made J. L. Tomlinson president, and Edward Crafts cashier. They at once began the issue of notes for circulation. A part, perhaps the whole, of the notes put forth bore a suggestion of fraud on their face. While in fact the promises of the Derby Bank to pay a sum of money at a well-known bank in the city of New York, they were so contrived as to appear, to one who did not read the whole of the printed matter, to be the issues of the New York bank at which they were payable. They were first made payable at the Mechanics' Bank, but that bank became suspicious that fraud was intended and declined the business of the Derby Bank. The plates were then altered and the bills were made payable at the Fulton Bank. In November, 1825, the deposit was withdrawn from the Ful-

* This is the form in which the statement appears in the *Hartford Times* of November 1, 1825. There is an error in the liabilities of \$5,000.

ton Bank and the Derby Bank stopped payment. The amount of its notes in circulation, according to a newspaper statement of the time, did not exceed \$80,000. The notes were never redeemed, but debtors to the bank bought them at varying discounts, and something was realized by the holders of notes who attached and held the banking-house. Mr. Tomlinson is credited with having been simply the tool of the New York swindlers. The General Assembly of 1826 repealed the charter of the bank.

Commercial distress and dulness succeeded the disturbance of 1825, and it was not until 1827 that confidence was restored. In the year last named the legislature incorporated the Quinebaug Canal Bank. It never went into operation, and the charter was repealed in 1832. The Tolland County Bank at Tolland, with a capital of not less than seventy-five nor more than one hundred and fifty thousand dollars, was incorporated in 1828.

In 1830 the legislature granted a charter to the Middlesex County Bank. The amount of its capital was fixed at \$200,000, and the debts of the corporation, whether by bond, bill, or note, were limited to fifty per cent. over and above the amount of the capital actually paid in. In the following year the stockholders were authorized, after paying in \$100,000 as capital stock, to postpone the time fixed by the charter for the payment of the remainder due on such stock.

Banks at New Haven, Bridgeport, East Haddam, and Jewett City were chartered in 1831, and an act was passed prohibiting any person, without authority from the General Assembly, from issuing promissory notes or orders intended to be used as currency. The penalty for such a violation of the act was a fine of not more than six hundred dollars and not less than one hundred dollars, and imprisonment in the common jail not less than three months nor more than one year. The passing of such bills or drafts issued without the authority of the state of Connecticut or some other state, district, territory, or country, was also forbidden, under a penalty of not more than one hundred dollars, nor less than twenty dollars for each offence.

The charter of the City Bank of New Haven gave it a capital of \$500,000, and required it to subscribe \$100,000 to the stock of the Hampshire and Hampden Canal Corporation. In consideration of this subscription, the stock of the bank was to be free from taxation until such time as the tolls collected by the canal company should be sufficient to pay a dividend of six per cent. on the stock of the canal company. And the bank was not obliged to receive subscriptions in addition to its capital from the state of Connecticut, the school fund, ecclesiastical societies, charitable corporations, etc.

The capital of the Connecticut Bank of Bridgeport was required to be at least \$200,000, and might be increased by the stockholders to \$300,000. The directors were required to establish a branch at the village of Mill River, in the town of Fairfield, and to employ there one-third of the capital paid in. As a consideration for the charter, the sum of seven thousand dollars was to be paid to the treasurer of Yale College, and the sum of three thousand dollars to the treasurer of Washington College. In case of the failure of the bank, the holders of bills of the denomination of one hundred dollars and under, were to have a lien on all its estate, real and personal, and all debts due to it. If at the time of failure the debts of the bank should exceed fifty per cent. over and above the amount of the capital actually paid in, and the moneys deposited for safe keeping, the president, directors, and cashier were to be held liable as joint and several debtors, to pay the bills of the denomination of one hundred dollars and under.

The capital of the East Haddam Bank was fixed at not less than seventy-five

thousand nor more than one hundred thousand dollars and the capital of the Jewett City Bank at one hundred thousand dollars. In the charters of the two banks last named, the ultimate payment of bills of \$100 and under was provided for as in the charter of the Connecticut Bank.

In 1832 the Quinebaug Bank at Norwich was chartered with a capital of five hundred thousand dollars. It was required to subscribe one hundred thousand dollars to the stock of the Boston, Norwich and New London Railroad Company, and if required by the directors of the railroad company, a second sum of one hundred thousand dollars. In consideration of this subscription the capital stock of the bank was made free from taxation "until the said bank and said railroad corporation shall be enabled to make a dividend which when taken together shall be equal to six per cent. per annum on the united capital stock." Holders of bills had all the rights and privileges of holders of bills issued by the Connecticut Bank.

At the same session the Windham Bank—capital one hundred thousand dollars—was incorporated. The Connecticut Bank provision for billholders was included in the charter.

Railroad legislation began with this session of the General Assembly. Three companies were authorized, viz.: the Boston, Norwich and New London, to construct a line from Norwich towards Boston and from Norwich to the south; the New York and Stonington, to build a line from Stonington to the eastern boundary of the state; and the Sharon and Salisbury, intended to connect New York and Massachusetts railway lines. The last named road was never built.

CHAPTER LIX.

CURRENCY AND BANKING IN CONNECTICUT—Continued.



GENERAL JACKSON in his first message to Congress, in December, 1829, said, "The charter of the Bank of the United States expires in 1836, and its stockholders will most probably apply for a renewal of their privileges. In order to avoid the evils resulting from precipitancy in a measure involving such important principles, and such deep pecuniary interests, I feel that I cannot, in justice to the parties interested, too soon present it to the deliberate consideration of the legislature and the people. Both the constitutionality and the expediency of the law creating the bank are well questioned by a large portion of our fellow-citizens; and it must be admitted by all, that it has failed in the great end of establishing a uniform and sound currency." In 1830, and in 1831, he again expressed similar views. The policy to be pursued, with reference to the bank, was thus brought prominently forward, and held a place among the leading questions of the time. It was not strictly a test of party fealty; indeed, parties were at that time greatly disorganized, but, generally, the National Republicans, or Whigs, favored a renewal of the bank charter, while the Democratic Republicans opposed it. A part of the Democrats, who opposed a renewal of the charter, confined their opposition to a bank having the constitution, powers, and privileges of the Bank of the United States, while others, more radical members of the party, denounced all banks as aristocratic instruments of tyranny, and oppressors of poor men, and paper money as a curse to society. Within the last twenty years there had been two severe crises, or periods, when

from some cause credit was destroyed or greatly weakened. Banks, as well as merchants and manufacturers, had, in consequence, failed. The privilege of issuing notes for circulation as money had been abused, especially in the Middle states, the West, and the South, and many banks had been unwisely, and some had been fraudulently, conducted. The services performed by banks in distributing capital and credit, promoting exchanges, and increasing the rewards of labor, were not understood by the masses. The abuses they saw, the failures they remembered, the advantages they did not comprehend; hence the feelings of antipathy with which banks were regarded by great numbers.

In response to a memorial presented by the bank an act granting a renewal of the charter was passed by both houses of Congress in 1832. It was promptly vetoed by the President. War was now openly declared between General Jackson and the bank. The general was a candidate for re-election, opposed by Henry Clay, National Republican, and William Wirt, Anti-Mason. With the bank it was a struggle for life, for its charter would expire before the end of another presidential term, and the re-election of General Jackson would destroy all hope of lengthened days. It caused the speeches of Mr. Webster and other defenders of the bank, in Congress and out of it, to be printed and distributed throughout the country, and used the influence which capital always possesses against the re-election of the President. The partisans of General Jackson bitterly denounced the bank and its management. It was held to be not far from a true word spoken in jest to say that it was "governed by young Nick (Nicholas Biddle) according to the principles of old Nick." "The great business community, with few exceptions, comprising wealth, ability and education, went for the bank, and the masses for General Jackson."* The latter gave him a large majority in the electoral college in 1833. Mr. Clay, his chief rival, said, "he was re-elected from his presumed merits generally, and from the attachment and confidence of the people, and also from the unworthiness of his competitor. The people had no idea, by that exercise of their suffrage, of expressing their approbation of all the opinions which the President held." This statement should be taken with some allowance, for his competitor was then arguing against the course of the President in relation to the bank. It was certainly true, however, that throughout the country there was great popular enthusiasm for General Jackson. His audacity, his iron will, his undoubted integrity, and his brilliant military record awakened unreasoning admiration, and votes were cast for the man rather than his measures. Holding his views, a less popular man personally might have been defeated. The "hero of two wars, who pushed back the English bayonets from the Union at the peril of his life," was held up to view as endeavoring "to free the soil of his country from a hydra-headed monster of tyranny and corruption," *i. e.*, the bank. It was a moving spectacle, and the sympathies of the crowd went with the man, without too critical an examination of the foe against which he was struggling. The President and his friends claimed that the people had indorsed the President's views as well as the President. Everywhere the Jackson men were jubilant and the bank men were correspondingly discouraged.

At the spring election in Connecticut in 1833, the Jackson men elected a majority of the legislature, and the legislature chose Henry W. Edwards governor, no candidate for that office having received a majority of the votes cast by the people. "Farmer" Joseph Pratt and "Mechanic" William Hayden, as they were called at freemen's meetings, both Jackson Democrats, represented the town of Hartford. Al-

* T. H. Benton (anti-bank), "Thirty Years' View."

though a section of the Democrats of the state were fiercely opposed to all banks, not all of the Jackson men were equally sweeping in their hostility, and strangely enough, this Jackson legislature chartered more banks than any of its predecessors. The radicals spoke bitterly of the "farmers" in ruffled shirts by whom they considered themselves betrayed. Six banks were authorized.

The capital of the Farmers' and Mechanics' Bank at Hartford was fixed at \$500,000. "Farmer Pratt" said to the House that it was intended that this bank should be what its name imports, a bank for farmers and mechanics.

The capital of the Merchants' Bank at Norwich might not be less than \$300,000, and might be increased to \$500,000. It was required to expend a sum equal to ten per cent. of its capital in improving the navigation of the Thames river, and any part of that sum not necessary for the improvement of such navigation remaining unexpended at the end of five years, was to be paid into the treasury of the state.

The capital of the Meriden Bank might not be less than \$100,000, nor more than \$150,000.

The Thompson Bank might have a capital not less than \$100,000, nor more than \$200,000.

The capital of the Whaling Bank at New London was fixed at \$300,000.

A charter was also granted to the Mystic Bank which was organized with a capital of \$50,000.

All of the bank charters granted at this session, except that of the Whaling Bank, contained the Connecticut Bank provision for billholders and a new provision, requiring a sworn certificate of the amount of capital paid in to be deposited annually with the town clerk of the town in which the bank was established.

In June of this year, the President, attended by the vice-president and members of the cabinet, made a grand progress through New England. He was received everywhere with genuine, hearty enthusiasm. He visited Bridgeport, New Haven, Middletown, Hartford, Norwich, New London, and other places in Connecticut. At Hartford he was received near the present entrance to the Cedar Hill cemetery by General Hayden and a numerous staff. There he left his carriage, and mounting on horseback, he was conducted to near the city limits, where a large body of troops awaited his approach. After a review he was escorted through the principal streets. At Norwich he participated in ceremonies connected with raising a monument to the Indian chief Uncas. At Concord, N. H., he suddenly ended his tour and returned directly to Washington. It was given out that he was exhausted and made ill by receptions, parades, dinners and junketings, but an eminent citizen of Connecticut,* who accompanied him through the state, was of the opinion that the real cause of his abrupt return was the more conveniently to carry out the measures on which he had determined with reference to his old enemy, the Bank of the United States. It was presently announced that the deposits of public money were to be removed from it. These deposits varied in amount from time to time, and year to year, but since the bank had been in operation, they had averaged over six millions of dollars on the first of December in each year, and had generally more than equalled the sum of private deposits made with the bank. On the 1st of October, 1833, when the order which, in the end, was issued, took effect, they amounted to \$9,868,435.58. The act incorporating the bank contained the following section: "And be it further enacted, that the deposits of the money of the United States, in places in which the said bank and branches thereof may be established, shall be made in said bank or

* The late Gideon Welles, some time Secretary of the Navy.

branches thereof, unless the secretary of the treasury shall at any time otherwise order and direct, in which case the secretary of the treasury shall immediately lay before Congress, if in session, and if not, immediately after the commencement of the next session, the reasons of such order or direction." At the suggestion of the President, an examination of the bank had been made by a committee of the House of Representatives during the last session of Congress, which reported a resolution which was adopted by the House, declaring that the government deposits might safely be continued in it. But General Jackson was not a man whose will ordinary things could baffle; the bank had opposed him; it was his enemy; the public deposits were a source of power and profit; the alleged unlawfulness of the proceeding, and the commercial disturbance it might produce, were trifling matters for subsequent consideration; he believed that the people would support him, and he determined to remove the deposits. He said to Mr. Duane, the secretary of the treasury, that unless the bank was broken down, it would break down the administration. Mr. Duane declined to issue the order for the removal of the deposits, and was himself removed. R. B. Taney, who, as attorney-general, had favored in the cabinet the removal, was made secretary of the treasury, and issued orders, directing that public moneys, on and after October 1, 1833, should no longer be deposited in the Bank of the United States and its branches, but in sundry state banks designated by him. The state banks selected as depositories were popularly known as "pet" banks. The Mechanics' Bank, at New Haven, the Farmers' and Mechanics' Bank, at Hartford, and the New London Bank, at New London, received the public money in Connecticut. The secretary of the treasury sent to Congress a long report assigning reasons for his action. He did not question the solvency of the bank.

The real reasons being purely political, the House of Representatives, which had a majority of friends of the President, voted that the public deposits ought not to be restored to the Bank of the United States, and ought to be continued with the state banks. In the Senate, however, it was voted that the reasons assigned by the secretary were unsatisfactory and insufficient; and that the President, in the late executive proceeding in relation to the public revenue, had assumed upon himself authority and power not conferred by the Constitution and laws, but in derogation of both. The bank and the public deposits were prominent subjects of controversy during the whole session. It could not well have been otherwise, for, the pressure for money, ascribed to the removal of the deposits, during the whole winter was unprecedentedly severe. The *Boston Courier* said, "No account can exaggerate it. The types are not yet cast that can represent things worse than they really are." Business was paralyzed and merchants and manufacturers failed in great numbers. Niles's *Register*, May 3, 1834, has a list of thirty cotton mills, with a capacity of seventy thousand four hundred spindles, in the vicinity of Providence, Rhode Island, which had stopped. The daily question was rather who is standing than who has gone down. Monster meetings of those who disapproved the action of the President were held in all parts of the country. Fifty thousand persons were said to have gathered in one meeting near Philadelphia. Petitions praying for a re-charter of the United States Bank and a restoration of the deposits, signed by hundreds and thousands of persons, were daily presented in Congress and to the President. The banks of Hartford, except the "pet" bank, were among the petitioners. Delegations of merchants, bankers and tradesmen waited on the President in person and besought him to grant relief by restoring the deposits to the national bank. His replies were by no means ambiguous. He told a Philadelphia committee, representing upwards of ten thousand

memorialists, that "Andrew Jackson never would restore the deposits to the bank—Andrew Jackson never would re-charter that monster of corruption—that neither persuasion nor coercion, nor the opinions of the people, nor the voice of the legislature could shake his fixed determination—that sooner than consent to restore the deposits, or re-charter the bank, he would undergo the tortures of ten Spanish inquisitions; that sooner than live in a country where such a power prevailed, he would seek an asylum in the wilds of Arabia." He told the committee that whatever disaster existed in the community had been caused by the bank and that to the bank they ought to apply for relief.

There was nothing in the gradual transfer of ten millions of money from the Bank of the United States and its branches, to the state banks, although so heavy a transfer would cause some disturbance, to make a commercial crisis inevitable; neither were the disasters of the period, as was charged at the time, due to vindictive contraction by the Bank of the United States, although the bank was doubtless willing that the country should suffer some inconvenience from the action of the President. During the summer of 1833, after it came to be understood that the President contemplated a removal of the deposits, the bank took measures to provide for the payments it might be called upon to make by diminishing the time for which loans were granted. There was an actual reduction of their amount between July 1st and October 1st of about \$3,000,000, but the conditions of business had been such for the ten years next preceding, that in every year except two, there had been a reduction in the amount of loans between July 1st and October 1st of from one to four millions of dollars. The curtailment at that season was not unusual. The condition of the bank in respect to loans and deposits, October 1, 1833, when the orders of the secretary went into effect, was as follows, viz.: loans, \$60,094,202.93; public deposits, \$9,868,435.58; private deposits, \$8,008,862.78. April 1, 1834, it had: loans, \$54,806,817.62; public deposits, \$2,932,866.74; private deposits, \$7,166,028.21.

From these statements it will be seen that in six months following the removal of the deposits there was a reduction in public deposits of \$6,935,568.84; in private deposits of \$842,834.57; total, \$7,778,403.41; in loans of but \$5,287,385.31; less by \$2,491,018.10 than the reduction in the amount of the deposits. Neither was the crisis owing to what is generally designated as "overtrading," for the exchanges were at that time favorable to the country, and the rapid recovery that took place during 1834 indicates that business was transacted on a sound basis. The convulsion seems to have been due to a sudden, fatal destruction, by unwarranted fears, of that powerful and sensitive instrument of exchange, too subtle to be set in statistical tables, confidence or credit. The policy to be pursued regarding the national bank was a political question commanding universal attention. Before the deposits were withdrawn the friends of the bank exaggerated the evils that would follow removal for the purpose of preventing it, so that when executive orders to that end were issued, the public was prepared to believe that frightful results must follow. Men saw that the bank must demand payment of a considerable portion of its loans; the result of such a demand they feared. Between the bank on one side, and the President and the deposit banks on the other, a bitter fight was looked for, in which non-combatants would suffer, whatever might happen to the principals. The exercise, as they believed, of unlawful power on the part of the President, was alarming to men of business, whose operations can be safely carried on only when law is rigidly respected and enforced. That the monetary system of the country, on which all their transactions were built, should be subject, as they conceived it, to the caprice of one man, and that man Andrew Jackson, was monstrous. Confidence

gave way under gloomy apprehensions, the wheels of commerce were blocked, and alarm soon ran into unreasoning panic. The period of disturbance was not of long duration ; before the end of the summer of 1834, the tornado was spent and the skies became clear again. The disasters were not so serious as had been feared. While the tempest was still raging the spring election in Connecticut took place, and resulted in an overwhelming defeat of the adherents of the President. Both branches of the General Assembly were strongly anti-Jackson, and Samuel A. Foote, a Whig—the mover in the United States Senate of the resolution concerning the public lands, which was the occasion of the famous constitutional debate in which Webster and Hayne were notable participants—was elected governor.

Four banks were chartered this year—the Manufacturers' Bank at Farmington, which never went into operation ; the Exchange Bank at Hartford, the New Haven County Bank at New Haven and the Stamford Bank. The Exchange Bank was projected as an offset to the Democratic bank, the Farmers' and Mechanics', chartered in the previous year. Its capital was \$500,000. To make it yet more a bank of the people than its Democratic rival, the shares were fixed at \$50. Poor men might become subscribers as well as rich owners of \$100. No person or company could hold more than two hundred shares. As a consideration for the charter, the bank was required to pay a bonus of \$25,000. Of this amount the sum of \$2,000 was required to be paid into the treasury of the state ; \$8,000 was to be expended under the direction of the Common Council of the city of Hartford, in "erecting an iron railing around the state-house in Hartford, in making suitable walks, well flagged, setting up stone-posts, and paving the gutters about said railing ;" and \$15,000 was required to be paid to the Connecticut Silk Manufacturing Company. The silk company was required to pay thirteen and one-third per cent. of the last-named sum to Gamaliel Gay and James Bottom as a remuneration for their expenses and labor in inventing and constructing machinery for the manufacture of silk, on their giving a bond "that said machinery may be used by any person in this state, for the manufacture of silk, without any additional charge for, or on account of, any patent they have, or may procure, upon the same." The Connecticut Silk Company was further required to pay \$1,500 to the Mansfield Silk Manufacturing Company, to be applied by the last-named company "in the encouragement of the growth and manufacture of silk."

The capital of the New Haven County Bank was fixed at \$500,000. More democratic even than that of the Exchange Bank was its charter ; the shares were made \$25 each, and the commissioners were to publish in a newspaper, printed in the county of New Haven, a list of all applicants for stock, the amount subscribed for by each, and the amount allowed to each, and to report a similar list to the General Assembly. A bonus of \$10,000 was required, to be divided equally between the General Hospital Society of the State of Connecticut and the Hampshire and Hampden Canal Company.

The capital of the Stamford Bank was \$100,000, in shares of \$50 each, and the books were required to be open for additional subscriptions from the funds of this state, the school fund, the funds of any college, ecclesiastical society, school or corporation for charitable purposes, at \$50 per share ; the shares to be non-transferable. A bonus of \$5,000 was required to be paid to the Wesleyan University.

After this session no new bank charter was granted for thirteen years, or until 1847. The Danbury Bank was created in 1844 by dividing the Fairfield County Bank in two equal parts, thus making what had before been the Danbury branch of the Fairfield County Bank a distinct and separate corporation.

At the May session, 1835, the General Assembly passed an act prohibiting the issue after July 1st, and the circulation after September 1st, of notes less than \$2, and the issue after January 1, 1836, and the circulation after March 1st, of notes less than \$3. This act was suspended in 1836, and the issue or circulation of notes less than \$5 prohibited after July 1, 1838.

The same Assembly was guilty of passing an act making it unlawful for any bank to retain as surplus earnings more than five per cent. on the amount of its capital stock.*

Complaints that the City Bank of New Haven had not conducted its business in accordance with its charter and to "facilitate the business of the people of New Haven and the neighboring towns," led to the appointment of a committee by the General Assembly of 1836, to examine and report upon the truth of these allegations. The committee was not heartily welcomed, and it found difficulty in the way of making the examination.

Its report was to the effect that loans had been made in such manner and to such persons that it had been "a bank for some other place than New Haven," and that excessive interest—more than six per cent.—under the name of exchange had been taken, with the result that the earnings in 1836 were nearly twice what they ought to have been. This report was made to the General Assembly, not to a meeting of stockholders. The committee added that "the resources and ability of the bank have never been questioned."

Although the panic of 1833-34 was acute, it was short-lived. Commercial operations were soon resumed on the usual footing.

The Erie Canal, completed in 1825, was an easy route to the chain of great lakes and the fertile territory of the West. The successful introduction of steam locomotives in 1829 made possible railways penetrating regions inaccessible by water. Exaggerated notions of the profits of banking, to which attention had been especially directed by the controversy between the President and the United States Bank, and the removal of the deposits, led to the multiplication of banks and a great expansion of circulation and loans. Of the thirty-one banks in Connecticut at the end of 1834, fifteen were chartered in the years 1831 to 1834, inclusive. In the years 1830 to 1836 seventy-eight new banks were chartered in Massachusetts. The proportional increase outside of New England was greater. The heavy and increasing deposits of the United States had been transferred from the custody of the United States Bank, managed by financiers of experience, to smaller banks, many of which were controlled by managers without knowledge of banking, theoretical or practical. Cotton, under a demand from England where credits were also expanding, advanced twenty-five per cent.

In 1833-34 the average price per pound was, 12.8 cents.

1834-35 " " " " 16.8 "

1835-36 " " " " 16.8 "

These causes and others aroused and developed a speculative spirit that, fed by early successes, ran wild. Western and southern land, especially land in Alabama and Mississippi, the cultivation of which promised immense profits in the production of cotton, offered a promising field for its indulgence. "They speculate," says Chevalier,† "on the probable value of such and such localities for future cities, as if three or four Londons, as many Parises, and at least a dozen Liverpools, were speedily to

* This was perhaps a general law made to fit a special case.

† *Amerique du Nord*, Vol. I.

spread in these desert abodes their streets, their houses, their wealth, their forests of masts."

A newspaper of the time said that "the story of the Bangor man who gave two shillings for the privilege of leaning against the sign-post, and was soon offered a dollar for his berth, portrayed exactly the state of things at Detroit."

President Van Buren, in his message of 1837, estimated the change in banking capital, loans and circulations as follows: January, 1834: Capital, \$200,000,000; loans, \$320,000,000; circulation, \$95,000,000. January, 1836: Capital, \$251,000,000; loans, \$457,000,000; circulation, \$140,000,000.

In unproductive lands sold by the government, \$39,634,779 were invested in the two years, 1835 and 1836, while in the preceding year the amount so invested was but \$4,857,600. At the end of 1836 the money in the treasury amounted to \$41,723,959. The public debt was extinguished.

In his message of May, 1836, Governor Edwards said to the people of Connecticut, "The same increase of population, extension of cultivation, manufactures and internal improvements which were noticed on a former occasion still continue. Our march is onward, and there is no country whose prospects are more cheering." The cloud in the horizon was not visible to the governor.

Any rise in prices, accompanied by unusual commercial activity, is attended with danger; a riotous speculation such as that evolved by the conditions mentioned inevitably leads to disaster. It matters little what the immediate cause of the breakdown may be. In this case it was the issue of the "specie circular," the effect of which was further aggravated by the distribution of the treasury surplus under an act of Congress passed in June, 1836. The famous specie circular was issued July 11, 1836, one week after the adjournment of Congress, having been purposely withheld, says Mr. Benton, to avoid any interference by Congress, a majority of both houses being known to be opposed to the measure. It provided that payment for lands sold after the 15th of August, except to actual settlers, or residents of the state, and in quantities not exceeding three hundred and twenty acres, was to be made in specie, and after the 15th of December, in gold or silver, without exception. The intent of the circular was wise, for the receipts were in large part bank-notes, which might prove inconvertible, and perhaps the issue was prudent, for conditions were such that an explosion could not be avoided. The act for the distribution of the surplus provided that the money in the treasury on the 1st of January, 1837, reserving \$5,000,000, should be deposited with the states in proportion to their respective representation in Congress, in four quarterly installments, beginning with January.

The effect of these measures was felt at once, and when Congress met, in December, a resolution was introduced rescinding the specie circular. Mr. Benton defended it. He regarded the present movement against the circular as dictated by the same motives as that of 1833 against the removal of the deposits. "Then," said he, "we had a magnificent panic, now nothing but a miserable starveling; . . . a mere church-mouse concern—a sort of dwarfish, impish imitation of the gigantic spectre which stalked through the land in 1833." Mr. Calhoun, wiser than Mr. Benton, declined to vote, on the ground that the measure could not arrest the downward course of the country, that an explosion was inevitable and would be so much the greater the longer it should be delayed. The resolution passed both houses, but it received a "pocket veto" from the President.

The report of the delegates of the banks of the city of New York to the bank convention held at New York from the 27th of November to the 1st of December, 1837, states the causes of the crisis from their point of view. It will be observed

that no mention is made of the excessive expansion of bank circulation which accompanied and fostered the general expansion of credits and which played so important a part in the rise and in the subsequent fall of prices.

"The simultaneous withdrawing of the large public deposit and of excessive foreign credits, combined with the great and unexpected fall in the price of the principal article of our exports, with an import of corn and breadstuffs such as had never before occurred, and with the consequent inability of the country, particularly the southwestern states, to make the usual remittances, did at one and the same time fall principally and necessarily on the greatest commercial emporium of the Union."

To complete in specie payments for lands, bills were sent home for redemption and arrangements were made to import specie from abroad. At the same time the deposit banks—the holders of government funds—were obliged to provide for the payment of the surplus to be deposited with the states. This amount was found to be \$37,468,859.97, one-fourth of which was payable January 1, 1837. General contraction was unavoidable. The rates for money steadily advanced in the latter half of 1836 and early in 1837; distress among merchants was great. In March the strongest houses began to fall. In April a cotton house failed at New Orleans having liabilities of \$15,000,000, and other houses in the same city having liabilities of \$12,000,000 failed at about the same time.* Money at New Orleans was 5 to 6 per cent. per month.* A Mobile paper said that nine-tenths of the merchants of that city were bankrupt. Cotton, which a few weeks earlier could have been sold at 15 cents, sold at 7 cents.* Negroes that cost \$1200 would fetch from \$150 to \$300.* The *New York Journal of Commerce* of April 8th said that there had been in that city ninety-eight failures, aggregating \$60,500,000. At last, May 10, 1837, the New York banks were compelled to suspend. The following day the banks of Philadelphia, Hartford and Connecticut generally, except the City Bank of New Haven, the Union Bank of New London, the Mystic Bank, and the Stonington Bank, took the same course. The Boston banks suspended May 12.

The Bank of England began to contract its loans as early as June, 1836. A writer in *Blackwood's*, of August, 1837, said, "For the last nine months distress and suffering in their most protracted and aggravated form have been passing over the commercial world, both of this country and America. Inferior to the great catastrophe of December, 1825, in the pressure on the banks, and consequent general panic through the community, the crisis of 1837 has been infinitely superior to it in the lengthened suffering which it has diffused through the manufacturing interests, and the unparalleled distress in which it has involved the working classes. The greatest mercantile houses of Britain have been brought to the edge of perdition." Manufactured articles fell one-half. One-half the cotton mills were closed, and for six months fifty thousand hands were unemployed in Manchester and the neighboring country.

Under the law of 1821 banks were required to lodge in the office of the comptroller annual statements showing capital, liabilities and resources, and their general condition. No forms for these statements were provided. Each officer prepared his statement in accordance with his personal views as to form and matter. He seemed, as a rule, to desire to give no more information than the law required. The forms varied so greatly that tabulation, which the comptroller did not attempt, except under the two heads, capital and circulation, would have been impossible. The Hartford Bank, the largest in the state, made its statement in 1825 in this form:

* Niles's Register, 1837.

Capital stock, \$1,278,600 ; bank notes, \$337,059.56 ; balances against the bank, \$221,544.64 ; total, \$1,837,204.20. Bills discounted, \$1,225,084.69 ; cash, \$99,464.33 ; balances in favor of the bank, \$512,655.18 ; total, \$1,837,204.20.

The Phoenix Bank reported deposits \$213,710.55, but nothing whatever due other banks.

Whether the Hartford or the Phoenix had the larger deposits, it is impossible to know, but one of the two had the largest deposits in the state.

The Union Bank of New London reported no deposits, nor any item under which they could have been included. Generally, when the statement was made up in a form in which the two sides of the statement equalled one another, there was no debit or credit to profit and loss, or earnings or interest. The capital of the bank was exactly whole, without gain or loss. The statements were sworn to. The comptroller must have thought many of them at variance with the facts. What the cashiers were thinking, it is difficult to imagine. The General Assembly, at the May session, in 1836, appointed a committee, consisting of the treasurer of the state, the comptroller of public accounts, and the commissioner of the school fund, to inspect the banks of the state, with power to examine under oath all officers, agents or servants, and report to the next General Assembly. This was the first act providing for an examination of all the banks of the state, and the report of this committee is the first official report of the condition of the banks of Connecticut printed. The statements were made up at four o'clock, P. M. (which indicates the hour of closing), October 1, 1836, and were received from thirty of the thirty-one banks of the state. The exception was the Quinebaug Bank of Norwich, which declined to answer the inquiries of the committee. Subsequently a committee of directors requested another visit from the bank committee, which that committee declined to make, as it said, for want of time. The Assembly of 1837 passed a resolution forbidding the Quinebaug Bank to issue notes without first submitting to an examination. The bank was permitted to resume business by proclamation of the governor, July 5, 1837.

The committee also recommended the appointment of bank-commissioners, with powers and duties substantially the same as those given by the Assembly to the committee. This recommendation of the committee was adopted, and John C. Palmer and Chauncey F. Cleveland, afterward governor of Connecticut, were appointed such commissioners, being the first bank-commissioners appointed under the laws of the state of Connecticut. They reported to the General Assembly of 1838, and since that date reports of the bank-commissioner or commissioners have appeared each year among the public documents of the state. Summaries of the reports of the committee and the first commissioners follow, prefixed by statistics of earlier years derived from the report of the first bank-commissioners :

	LOANS.	CIRCULATION.	SPECIE.
September 1, 1831.....	\$5,964,941	.	
“ 1, 1832.....	6,843,941		
“ 1, 1833.....	7,743,429		
“ 1, 1834.....	7,891,898		
“ 1, 1835.....	11,352,095	\$3,598,958	\$287,951
“ 1, 1836.....	12,592,921	4,304,270	313,462
March 1, 1837.....	12,321,387	3,941,417	386,279
July 17, 1837.....	10,005,019	2,217,850	456,267
March 31, 1838.....	9,530,549	1,920,552	535,447

CONDITION OCTOBER 1, 1836.

LIABILITIES.

Capital transferable.....	\$7,882,460.	
" non-transferable.....	796,847.50	
		\$8,679,307.50
Bills in circulation.....		4,094,681.71
Balances due banks.....		457,650.27
Deposits not bearing interest.....	\$1,832,714.80	
" bearing interest.....	90,028.60	
		1,922,743.40
Dividends unpaid.....		36,655.76
Surplus, earnings, etc.....		415,557.94
Bonus due from banks.....		1,624.17
Other liabilities not specified.....		1,273.46
Variation in accounts.....		189.35
Due in New York.....		220.14
		<u>\$15,609,903.70</u>

RESOURCES.

Real-estate banking houses.....	\$165,993.32	
Other real estate.....	13,609.80	\$179,603.12
Personal estate.....		15,759.86
Bills of banks in this state.....	\$220,411.71	
" " out of this state.....	119,167.79	339,579.50
Balances due from banks.....		374,802.82
Deposits in other banks.....		127,684.64
Gold, silver and other coin.....		426,290.51
Stock of the banks.....		13,700.00
" " other banks.....		37,484.67
Other stocks.....		373,058.50
Bonus paid.....		71,116.19
Expenses.....		4,988.05
Specie funds, so called (not coin), New York.....		271,271.38
Cash drafts and checks on other banks		10,792.72
Bills discounted and debts due the bank:		
From corporations.....	\$295,523.75	
" individuals.....	13,066,404.85	13,361,928.60
Other property not before specified....		1,905.72
		<u>\$15,609,966.28</u>

CONDITION MARCH 31, 1838.

LIABILITIES.

Capital stock paid in.....	\$8,754,467.50
Notes in circulation.....	1,920,552.45
Balance due to other banks.....	224,378.45
Deposits not bearing interest.....	831,501.44
" bearing interest.....	53,263.02
Dividends unpaid.....	38,300.97
Surplus profits and loss and earnings.....	463,864.70
Debts and liabilities not included above.....	16,302.58
	<u>\$12,302,931.11</u>

RESOURCES.

Real estate.....		\$194,097.51
Personal estate.....		27,525.71
Notes of other banks in this state....		93,397.61
“ “ banks of other states.....		157,378.30
Balances due from other banks.....		653,453.74
Specie on hand.....		535,447.86
Stock of the bank owned by the bank		77,180.00
Stock of other banks owned by the		
banks.....		62,410.70
All other stocks owned by the banks		423,281.00
Deposits in other banks.....		76,830.54
Treasury notes.....		143,443.02
Bills discounted:		
For individuals.....	\$9,530,547.79	
“ corporations.....	238,739.01	9,769,286.80
All other property not specified above		79,537.65
		\$12,293,270.44

The losses of Connecticut banks in 1837-8 were large, but chiefly through loans made in western New York, then “the west,” and the failure of the house of E. M. Morgan & Co., bankers, which was the agent at New York, of, at least, six banks, or one-fifth of the banks of the state. No bank in Connecticut failed, and five banks did not suspend payment of specie on their circulating notes.

An examination of the returns of October, 1836, shows that their immediate resources, including due from banks, were equal to twenty-two per cent. of their immediate liabilities, and even the specie on hand was equal to ten per cent. of the outstanding circulation.

The statement of 1838 exhibits the extreme contraction that followed the panic. They were then in an impregnable position. The immediate resources were more than fifty per cent. of the immediate liabilities, and the specie on hand equalled twenty-seven per cent of the bills in circulation. They were fully prepared for the resumption of specie payments, which took place in May, 1838.

A striking development of the last sixty years is the marked change in the relative amounts and the importance in banking, as it is here conducted, of notes in circulation and deposits. In 1836 bills in circulation were \$4,094,681.71; deposits, \$1,922,743.40. In 1896 the notes in circulation of Connecticut National Banks were \$8,068,404.50, the deposits in national and state banks and trust companies \$42,946,995.84. Due in part to the restrictive effect of national legislation relating to the currency, the change, nevertheless, is chiefly to be ascribed to a modification of the habits of the people through the growth of the cheque-system in the payment of debts. Formerly, except by merchants, surplus money was carried on the person or locked up at home. A long pocket-book, in which bank-notes would lie flat and uncreased, was to be found in the pocket of every well-to-do citizen. To-day nobody above the grade of a laborer for weekly wages, is ignorant of the greater convenience and safety of a bank account, against which cheques can be drawn. This development is in harmony with other modifications of the ways of living, in the direction of greater interdependence. Families were brought to the verge of starvation by the blizzard of 1888, which, sixty years ago, could have withstood a thirty-day siege from the elements without inconvenience.

A fatal objection to the issue of unsecured bank-notes can be seen in the history of the panic of 1837. A bank possessing this privilege, in the hands of inexperienced, enthusiastic, credulous or wicked men—and such men are found in every generation—is sure to extend its circulation to the utmost limit in periods of expansion and rising prices. Such an extension is a powerful factor in creating conditions which are the prelude to a crisis. When some accident pricks the bubble, and prices fall and failures begin, the notes are hurried home for redemption, because there is no security behind them except the good faith and the ability of the issuing banks, and they count for little in public estimation when general confidence is destroyed. The redemption of these notes enforces a restriction of loans greater than would be necessary if they were not to be provided for. For every dollar of notes redeemed a corresponding dollar must be called in loans. Thus the unsecured bank-note gives stimulus to the causes which induce a financial crisis and intensifies its effect.

In all the great disturbances of general credit since the national banking law has been in operation, not one has been enhanced by contraction of loans, the result of the return of notes for redemption. The loans of Connecticut banks were contracted from \$12,592,921, in the autumn of 1836, to \$9,530,549 in the spring of 1838, that is to say, \$3,062,372. In the same time the amount of circulation outstanding was reduced from \$4,304,270 to \$1,920,552, that is to say, \$2,383,718. It seems almost incredible even under the conditions of that period when, as has been said, circulation was of greater relative importance than at present, that so large a part of the contraction in loans should have been due to the necessity of providing for its redemption. But the figures show that the amount of notes redeemed equalled 78 per cent. of the contraction in loans, and that the notes, therefore, were responsible for that proportion of the contraction.

CHAPTER LX.

CURRENCY AND BANKING IN CONNECTICUT—Continued.



HERE were in Connecticut at the close of 1896 eighty-two national banks, the combined capitals of which were \$22,391,070; eight state banks, the combined capitals of which were \$2,240,000; and twelve trust companies, doing a banking business, the combined capitals of which were \$1,245,000. There were eighty-nine savings-banks with deposits of \$149,496,555.86, and sixteen building and loan associations with assets of \$2,707,926. There were also eight mortgage investment companies which make returns to the bank commissioners. The deposits of the one hundred and two banks and trust companies receiving deposits subject to cheque were \$42,946,995.84, and the total assets of the two hundred and seven corporations engaged in banking in its various forms (the mortgage investment companies being excluded) were \$255,184,680.29. If the population of Connecticut in 1896 be estimated at 850,000, this sum is equal to \$300 for each inhabitant of the state. Some deduction, however, should be made for duplications, possibly, \$10,000,000, for shares of banks and trust companies owned by savings-banks, and for deposits of savings-banks with banks and trust companies, which would reduce the average perhaps ten dollars for each inhabitant. Between October 1, 1895, and October 1, 1896, the increase in the deposits of the savings-banks was \$6,337,432.81, and the number of new accounts opened was 53,925.

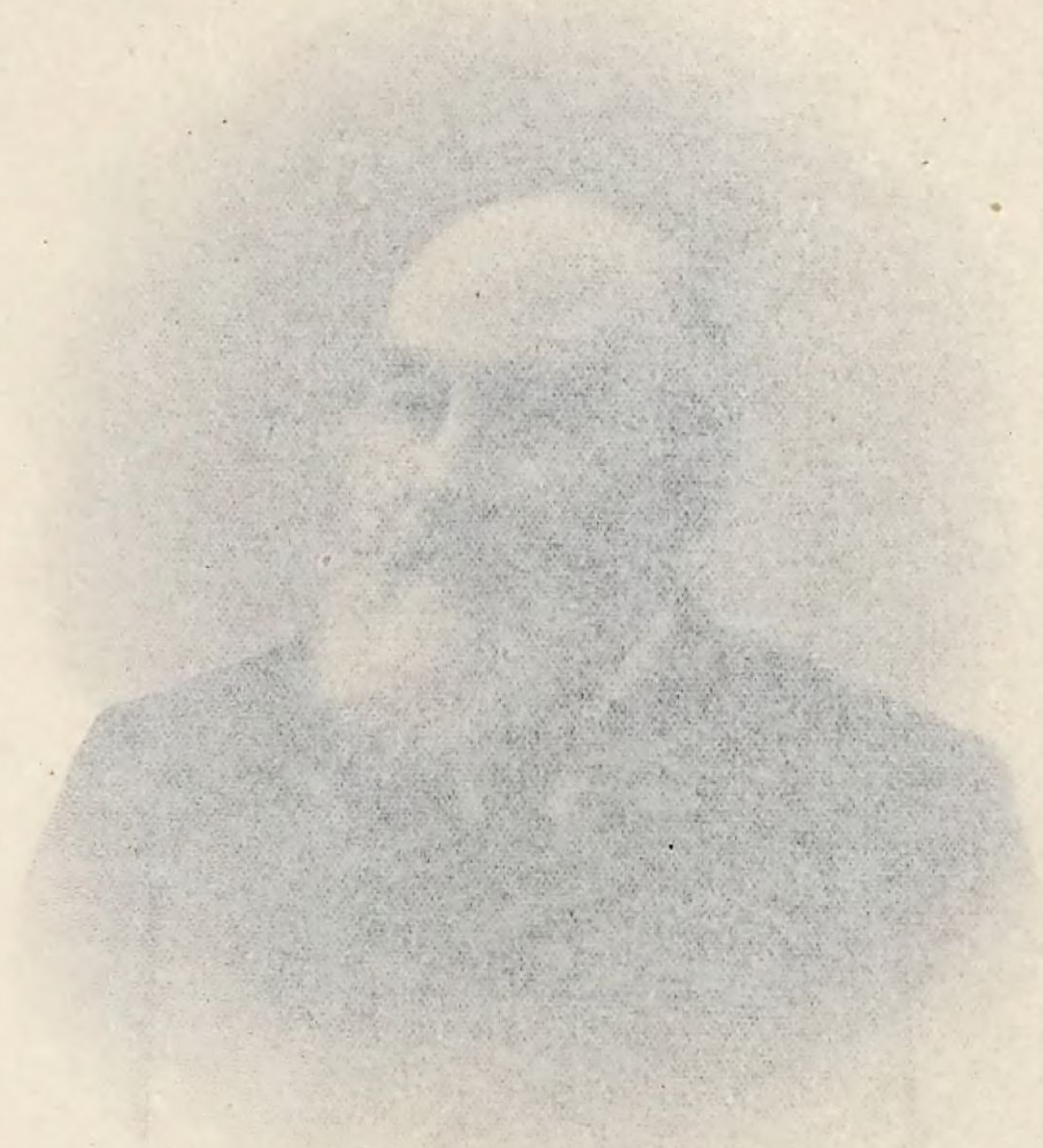
Sixty-five savings-banks paid dividends at the rate of four per cent. ; sixteen paid a higher rate, seven paid a lesser rate, and one paid no dividend.

The dividends of the national banks from September 1, 1895, to September 1, 1896, averaged seven and one-quarter per cent., and averaged larger than the dividends of the national banks of any other New England state.

Schedules of the national banks, state banks, trust companies, savings-banks, building and loan associations, and mortgage-investment companies, and summaries of their condition follow :

CONNECTICUT NATIONAL BANKS.

- ANSONIA NATIONAL BANK, Ansonia. Capital, \$200,000. President, Charles H. Pine ; Cashier, Fred. M. Drew.
- FIRST NATIONAL BANK, Bridgeport. Capital, \$210,000. President, Wm. E. Seeley ; Cashier, O. H. Brothwell.
- BRIDGEPORT NATIONAL BANK, Bridgeport. Capital, \$215,850. President, T. B. De Forest ; Cashier, F. N. Benham.
- CITY NATIONAL BANK, Bridgeport. Capital, \$250,000. President, Edwin G. Sanford ; Cashier, Fred. J. Banks.
- CONNECTICUT NATIONAL BANK, Bridgeport. Capital, \$332,100. President, Samuel W. Baldwin ; Cashier, H. S. Shelton.
- PEQUONNOCK NATIONAL BANK, Bridgeport. Capital, \$200,000. President, David Trubee. Cashier, I. B. Prindle.
- BRISTOL NATIONAL BANK, Bristol. Capital, \$100,000. President, J. H. Sessions ; Cashier, C. S. Treadway.
- CLINTON NATIONAL BANK, Clinton. Capital, \$75,000. President, L. L. Hull ; Cashier, E. E. Post.
- DANBURY NATIONAL BANK, Danbury. Capital, \$327,000. President, S. H. Rundle ; Cashier, J. Amsbury.
- NATIONAL PAHQUIOQUE BANK, Danbury. Capital, \$250,000. President, A. N. Wildman ; Cashier, M. H. Griffing.
- FIRST NATIONAL BANK OF KILLINGLY, Danielson. Capital, \$110,000. President, Abner Young ; Cashier, H. N. Clemons.
- WINDHAM COUNTY NATIONAL BANK, Danielson. Capital, \$50,000. President, C. S. Burlingame ; Cashier, C. P. Backus.
- DEEP RIVER NATIONAL BANK, Deep River. Capital, \$150,000. President, R. P. Spencer ; Cashier, R. L. Selden, Jr.
- BIRMINGHAM NATIONAL BANK, Derby. Capital, \$300,000. President, Chas. H. Nettleton ; Cashier, Chas. E. Clark.
- NATIONAL BANK OF NEW ENGLAND, East Haddam. Capital, \$130,000. President, Julius Attwood ; Cashier, James H. Morton.
- NATIONAL IRON BANK, Falls Village. Capital, \$200,000. President, Almon C. Randall ; Cashier, Dwight E. Dean.
- FIRST NATIONAL BANK, Hartford. Capital, \$650,000. President, J. H. Knight ; Cashier, C. D. Riley.
- ÆTNA NATIONAL BANK, Hartford. Capital, \$525,000. President, A. G. Loomis ; Cashier, A. Spencer, Jr.
- AMERICAN NATIONAL BANK, Hartford. Capital, \$600,000. President, Rowland Swift ; Cashier, Joseph H. King.
- CHARTER OAK NATIONAL BANK, Hartford. Capital, \$500,000. President, James P. Taylor ; Cashier, M. A. Andrews.
- FARMERS AND MECHANICS' NATIONAL BANK, Hartford. Capital, \$500,000. President, John G. Root ; Cashier, Wm. W. Smith.
- HARTFORD NATIONAL BANK, Hartford. Capital, \$1,200,000. President, James Bolter ; Cashier, W. S. Bridgman.
- MERCANTILE NATIONAL BANK, Hartford. Capital, \$500,000. President, J. B. Powell ; Cashier, Edwin Brower.
- NATIONAL EXCHANGE BANK, Hartford. Capital, \$500,000. President, J. R. Redfield ; Cashier, William S. Wooster.
- PHŒNIX NATIONAL BANK, Hartford. Capital, \$1,000,000. President, Henry A. Redfield ; Cashier, F. L. Bunce.



J. F. Morris,

which were made payable at the rate of four per cent.; sixteen paid a higher rate, some paying as high as six per cent., and one paid no dividend.

The dividends of the national banks from September 1, 1895, to September 1, 1896, averaged three and one-half per cent., and averaged larger than the dividends of the national banks of any other New England state.

Abstracts of the national banks, state banks, trust companies, savings-banks, building and loan associations, and mortgage investment companies, and summaries of their condition follow.

NATIONAL BANKS.

AMERICAN NATIONAL BANK, Boston. Capital, \$500,000. President, Charles H. Pine; Cashier, Fred. M. Dora.

FIRST NATIONAL BANK, Lowell. Capital, \$100,000. President, Wm. E. Seeley; Cashier, O. H. Knapp.

BANK OF NEW ENGLAND, Boston. Capital, \$215,850. President, T. B. De Forest; Cashier, W. H. Thayer.

CITY NATIONAL BANK, Worcester. Capital, \$250,000. President, Edwin G. Sanford; Cashier, Fred. J. Smith.

COLUMBIAN NATIONAL BANK, Springfield. Capital, \$332,100. President, Samuel W. Baldwin; Cashier, Wm. H. Smith.

FRONTIER NATIONAL BANK, Springfield. Capital, \$200,000. President, David Trubee; Cashier, J. E. Smith.

INDIAN NATIONAL BANK, Springfield. Capital, \$100,000. President, J. H. Sessions; Cashier, C. S. Treadwell.

MASSACHUSETTS NATIONAL BANK, Boston. Capital, \$75,000. President, L. L. Hull; Cashier, E. E. Post.

MASSACHUSETTS NATIONAL BANK, Haverhill. Capital, \$327,000. President, S. H. Rundle; Cashier, J. Amsbury.

NATIONAL CITY BANK, Danbury. Capital, \$250,000. President, A. N. Wildman; Cashier, M. H. Smith.

NATIONAL BANK OF DANVER, Danvers. Capital, \$110,000. President, Abner Young; Cashier, J. E. Smith.

NATIONAL BANK OF DANVER, Danvers. Capital, \$50,000. President, C. S. Burlingame; Cashier, J. E. Smith.

NATIONAL BANK OF DEERFIELD, Deerfield. Capital, \$150,000. President, R. P. Spencer; Cashier, J. E. Smith.

NATIONAL BANK OF DEERFIELD, Deerfield. Capital, \$300,000. President, Chas. H. Nettleton; Cashier, J. E. Smith.

NATIONAL BANK OF NEW HAVEN, East Haddam. Capital, \$130,000. President, Julius Attwood; Cashier, J. E. Smith.

NATIONAL BANK OF NEW HAVEN, East Haddam. Capital, \$200,000. President, Almon C. Randall; Cashier, Dwight A. Smith.

NATIONAL BANK OF NEW HAVEN, East Haddam. Capital, \$650,000. President, J. H. Knight; Cashier, C. D. Riley.

NATIONAL BANK OF NEW HAVEN, East Haddam. Capital, \$525,000. President, A. G. Loomis; Cashier, A. Spencer, Jr.

NATIONAL BANK OF NEW HAVEN, East Haddam. Capital, \$600,000. President, Rowland Swift; Cashier, Joseph A. Smith.

NATIONAL BANK OF NEW HAVEN, East Haddam. Capital, \$500,000. President, James P. Taylor; Cashier, J. E. Smith.

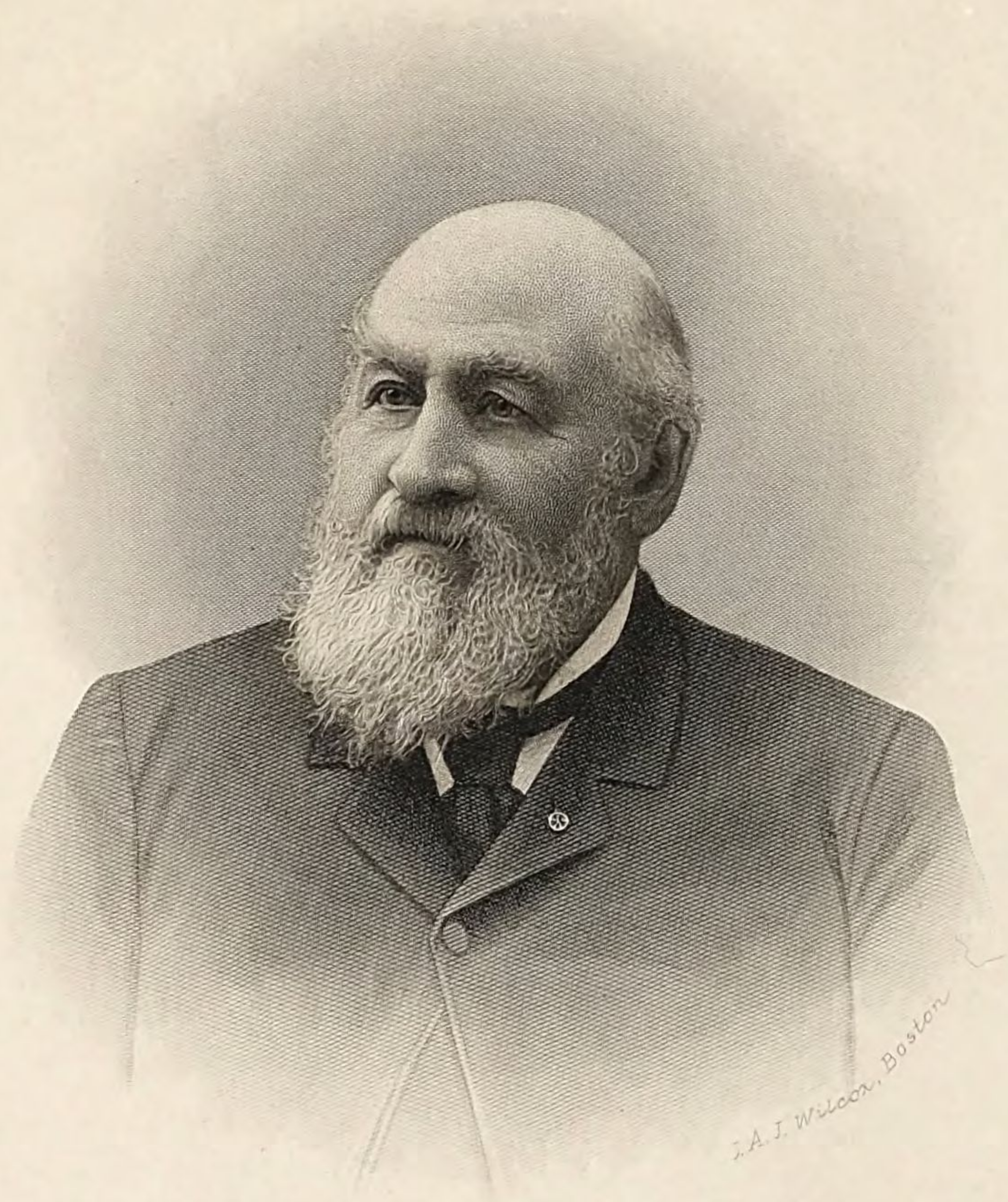
NATIONAL BANK OF NEW HAVEN, East Haddam. Capital, \$500,000. President, John G. Root; Cashier, J. E. Smith.

NATIONAL BANK OF NEW HAVEN, East Haddam. Capital, \$1,200,000. President, James Bolter; Cashier, W. S. Smith.

NATIONAL BANK OF NEW HAVEN, East Haddam. Capital, \$500,000. President, J. B. Powell; Cashier, Edwin Smith.

NATIONAL BANK OF NEW HAVEN, East Haddam. Capital, \$500,000. President, J. R. Redfield; Cashier, William A. Smith.

PACIFIC NATIONAL BANK, New York. Capital, \$1,000,000. President, Henry A. Redfield; Cashier, F. L. Smith.



J. F. Morris,

- FIRST NATIONAL BANK, Litchfield. Capital, \$200,000. President, C. B. Andrews; Cashier, Chas. E. Wilson.
- FIRST NATIONAL BANK, Meriden. Capital, \$300,000. President, John D. Billard; Cashier, C. L. Rockwell.
- HOME NATIONAL BANK, Meriden. Capital, \$600,000. President, A. Chamberlain; Cashier, J. S. Norton, Jr.
- MERIDEN NATIONAL BANK, Meriden. Capital, \$300,000. President, O. B. Arnold; Cashier, George M. Clark.
- FIRST NATIONAL BANK, Middletown. Capital, \$200,000. President, Seth H. Butler; Cashier, Edward G. Camp.
- CENTRAL NATIONAL BANK, Middletown. Capital, \$150,000. President, A. C. Markham; Cashier, R. C. Markham.
- MIDDLESEX COUNTY NATIONAL BANK, Middletown. Capital, \$350,000. President, James K. Guy; Cashier, W. B. Hubbard.
- MIDDLETOWN NATIONAL BANK, Middletown. Capital, \$369,300. President, Melvin B. Copeland; Cashier, William H. Burrows.
- MYSTIC RIVER NATIONAL BANK, Mystic. Capital, \$100,000. President, F. M. Manning; Cashier, H. B. Noyes.
- NAUGATUCK NATIONAL BANK, Naugatuck. Capital, \$100,000. President, George A. Lewis; Cashier, A. H. Dayton.
- MECHANICS' NATIONAL BANK, New Britain. Capital, \$100,000. President, J. B. Talcott; Cashier, W. E. Attwood.
- NEW BRITAIN NATIONAL BANK, New Britain. Capital, \$310,000. President, A. J. Sloper; Cashier, E. N. Stanley.
- FIRST NATIONAL BANK OF NEW CANAAN. Capital, \$100,000. President, Russell L. Hall; Cashier, S. Y. St. John.
- FIRST NATIONAL BANK, New Haven. Capital, \$500,000. President, Pierce N. Welch; Cashier, Fred. B. Bunnell.
- SECOND NATIONAL BANK, New Haven. Capital, \$500,000. President, A. B. Osborne; Cashier, Chas. A. Sheldon.
- MERCHANTS' NATIONAL BANK, New Haven. Capital, \$500,000. President, C. S. Mersick; Cashier, D. A. Alden.
- NATIONAL NEW HAVEN BANK, New Haven. Capital, \$464,800. President, Wilbur F. Day; Cashier, Robert I. Couch.
- NATIONAL TRADESMEN'S BANK, New Haven. Capital, \$300,000. President, W. T. Fields; Cashier, Robert Foote.
- NEW HAVEN COUNTY NATIONAL BANK, New Haven. Capital, \$350,000. President, E. G. Stoddard; Cashier, H. G. Redfield.
- YALE NATIONAL BANK, New Haven. Capital, \$500,000. President, S. E. Merwin; Cashier, J. A. Richardson.
- NATIONAL BANK OF COMMERCE, New London. Capital, \$300,000. President, Chas. Barns; Cashier, George B. Prest.
- NATIONAL WHALING BANK, New London. Capital, \$150,000. President, S. D. Lawrence; Cashier, B. A. Copp.
- NEW LONDON CITY NATIONAL BANK, New London. Capital, \$100,000. President, William Belcher; Cashier, W. H. Rowe.
- FIRST NATIONAL BANK, New Milford. Capital, \$125,000. President, Andrew B. Mygatt; Cashier, H. S. Mygatt.
- CENTRAL NATIONAL BANK, Norwalk. Capital, \$100,000. President, George M. Holmes; Cashier, William A. Curtis.
- FAIRFIELD COUNTY NATIONAL BANK, Norwalk. Capital, \$200,000. President, Edwin O. Keeler; Cashier, L. C. Green.
- NATIONAL BANK, Norwalk. Capital, \$240,000. President, Eben Hill; Cashier, H. P. Price.
- FIRST NATIONAL BANK, Norwich. Capital, \$400,000. President, Charles Bard; Cashier, Lewis A. Hyde.
- SECOND NATIONAL BANK, Norwich. Capital, \$300,000. President, C. P. Cogswell; Cashier, Ira L. Peck.
- MERCHANTS' NATIONAL BANK, Norwich. Capital, \$100,000. President, J. Hunt Smith; Cashier, Charles H. Phelps.

- THAMES NATIONAL BANK, Norwich. Capital, \$1,000,000. President, E. N. Gibbs; Cashier, Charles W. Gale.
- UNCAS NATIONAL BANK, Norwich. Capital, \$100,000. President, D. B. Spalding; Cashier, James H. Welles.
- PAWCATUCK NATIONAL BANK, Pawcatuck. Capital, \$100,000. President, Peleg Clarke; Cashier, J. A. Brown.
- FIRST NATIONAL BANK, Portland. Capital, \$150,000. President, F. Gildersleeve; Cashier, Jno. H. Sage.
- FIRST NATIONAL BANK, Putnam. Capital, \$150,000. President, James W. Manning; Cashier, John A. Carpenter.
- THOMPSON NATIONAL BANK, Putnam. Capital, \$75,000. President, Geo. H. Nichols; Cashier, Charles Arnold.
- FIRST NATIONAL BANK, Rockville. Capital, \$200,000. President, George Talcott; Cashier, John H. Kite.
- ROCKVILLE NATIONAL BANK, Rockville. Capital, \$300,000. President, A. Park Hammond; Cashier, C. E. Harwood.
- SOUTHINGTON NATIONAL BANK, Southington. Capital, \$100,000. President, Chas. D. Barnes; Cashier, L. K. Curtis.
- FIRST NATIONAL BANK, South Norwalk. Capital, \$100,000. President, Russell Frost; Cashier, Charles E. Ferris.
- CITY NATIONAL BANK, South Norwalk. Capital, \$100,000. President, R. H. Rowan; Cashier, Jacob M. Layton.
- SOUTHPORT NATIONAL BANK, Southport. Capital, \$100,000. President, E. C. Sherwood; Cashier, O. T. Sherwood.
- FIRST NATIONAL BANK, Stafford Springs. Capital, \$50,000. President, Chas. L. Dean; Cashier, F. G. Sanford.
- FIRST NATIONAL BANK, Stamford. Capital, \$200,000. President, A. R. Turkington; Cashier, H. Bell.
- STAMFORD NATIONAL BANK, Stamford. Capital, \$202,020. President, Charles A. Hawley; Cashier, John B. Reed, Jr.
- FIRST NATIONAL BANK, Stonington. Capital, \$200,000. President, Wm. J. H. Pollard; Cashier, N. A. Pendleton.
- FIRST NATIONAL BANK, Suffield. Capital, \$100,000. President, I. Luther Spencer; Cashier, C. S. Fuller.
- THOMASTON NATIONAL BANK, Thomaston. Capital, \$50,000. President, A. J. Hine; Cashier, F. I. Roberts.
- FIRST NATIONAL BANK, Wallingford. Capital, \$150,000. President, W. J. Leavenworth; Cashier, William H. Newton.
- FOURTH NATIONAL BANK, Waterbury. Capital, \$100,000. President, D. S. Plume; Cashier, B. G. Bryan.
- CITIZENS' NATIONAL BANK, Waterbury. Capital, \$300,000. President, Fred'k. J. Kingsbury; Cashier, F. L. Curtiss.
- MANUFACTURERS' NATIONAL BANK, Waterbury. Capital, \$100,000. President, David B. Hamilton; Cashier, Chas. F. Mitchell.
- WATERBURY NATIONAL BANK, Waterbury. Capital, \$500,000. President, Jas. S. Elton; Cashier, A. M. Blakesley.
- FIRST NATIONAL BANK, Westport. Capital, \$200,000. President, Horace Staples; Cashier, B. L. Woodworth.
- HURLBUT NATIONAL BANK, of Winsted, West Winsted. Capital, \$205,000. President, Henry Gay; Cashier, C. B. Holmes.
- WINDHAM NATIONAL BANK, Willimantic. Capital, \$100,000. President, Guilford Smith; Cashier, H. C. Lathrop.
- FIRST NATIONAL BANK, Winsted. Capital, \$75,000. President, D. Strong; Cashier, Frank D. Hallett.

SUMMARY OF THE CONDITION OF THE NATIONAL BANKS OF CONNECTICUT,
OCTOBER 6, 1896. (Number of banks, 82.)

RESOURCES.	LIABILITIES.
Loans and discounts \$43,497,818.72	Capital stock \$22,391,070.00
Overdrafts 139,171.74	Surplus fund 7,787,215.00
Bonds for circulation 9,038,500.00	Undivided profits 2,681,575.19
Bonds for deposits 250,000.00	National bank circulation 8,068,404.50
United States bonds on hand 220,500.00	State bank circulation 4,317.00
Premiums on bonds 545,898.70	Due to national banks 2,634,479.76
Stocks, securities, etc. 7,139,708.71	Due to state banks 523,966.11
Banking house, etc. 2,046,022.68	Dividends unpaid 38,717.93
Real estate, etc. 197,810.06	Individual deposits 32,435,961.17
Due from national banks 1,870,931.54	United States deposits 215,180.97
Due from state banks 309,923.86	Deposits of U. S. disbursing officers 5,495.73
Due from reserve agents 6,139,305.01	Notes re-discounted 116,414.93
Cash items 438,189.45	Bills payable 255,000.00
Clearing-house exchanges 320,987.60	Other liabilities 13,926.76
Bills of other banks 532,123.00	
Fractional currency 23,242.26	Total \$77,171,725.05
Specie 3,010,835.22	
Legal-tender notes 1,003,654.00	
Five per cent. fund with treasury 404,402.50	
Due from United States Treasury 42,700.00	
Total \$77,171,725.05	

CONNECTICUT STATE BANKS.

CITY BANK OF HARTFORD. Capital, \$440,000. President, Charles T. Welles; Cashier, Edward D. Redfield.

CITY BANK OF NEW HAVEN. Capital, \$500,000. President, Geo. W. Curtis; Cashier, Samuel Lloyd.

CONNECTICUT RIVER BANKING COMPANY. Capital, \$150,000. President, Samuel E. Elmore; Cashier, Henry W. Erving.

MECHANICS' BANK, New Haven. Capital, \$300,000. President, Charles S. Leete; Cashier, Charles H. Trowbridge.

SAYBROOK BANK, Essex. Capital, \$50,000. President, James Phelps; Cashier, Louis P. Parker.

STATE BANK, Hartford. Capital, \$400,000. President, George F. Hills; Cashier, George H. Burt.

UNION BANK, New London. Capital, \$300,000. President, Robert Coit; Cashier, J. Lawrence Chew.

UNITED STATES BANK, Hartford. Capital, \$100,000. President, Henry L. Bunce; Cashier, F. G. Sexton.

SUMMARY OF THE CONDITION OF THE CONNECTICUT STATE BANKS, OCTOBER 1, 1896.

ASSETS.	LIABILITIES.
Loans and discounts \$5,183,287 39	Capital stock \$2,240,000 00
Overdrafts 9,615 35	Surplus 555,209 26
Stocks, bonds and mortgages 1,493,654 72	Undivided profits 289,830 67
Due from banks and bankers 893,423 11	Dividends unpaid 4,815 50
Real estate, furniture and fixtures 204,278 01	Deposits 4,809,065 90
Current expenses 14,656 61	Due to banks and bankers 457,594 17
Specie and currency 465,929 54	
Checks and cash items 141,670 77	Total liabilities \$8,356,515 50
Total assets \$8,356,515 50	

CONNECTICUT TRUST COMPANIES.

THE COLUMBIA TRUST COMPANY, Middletown. Capital, \$50,000.

CONNECTICUT TRUST AND SAFE DEPOSIT COMPANY, Hartford. Capital, \$300,000. President, Meigs H. Whaples; Treasurer, John P. Wheeler; Secretary, Henry S. Robinson.

THE FIDELITY COMPANY, Hartford. Capital, \$50,000. President, John M. Holcombe; Treasurer, Charles P. Cooley; Secretary, Loomis A. Newton.

GREENWICH TRUST, LOAN AND DEPOSIT COMPANY. Capital, \$50,000. President, R. J. Walsh; Treasurer, Alfred A. Rundle.

HARTFORD TRUST COMPANY. Capital, \$300,000. President, Ralph W. Cutler; Secretary and Treasurer, Frank C. Sumner.

THE HOME TRUST COMPANY, Derby. Capital, \$25,000.

MERIDEN TRUST AND SAFE DEPOSIT COMPANY. Capital, \$25,000. President, Walter Hubbard; Secretary and Treasurer, Charles L. Rockwell.

THE SECURITY COMPANY, Hartford. Capital, \$200,000. President, Atwood Collins; Secretary and Treasurer, Charles Edward Prior.

THE STAMFORD TRUST COMPANY. Capital, \$100,000. President, John A. Brown; Treasurer, Walter D. Daskam.

THE THOMPSONVILLE TRUST COMPANY. Capital, \$25,000. President, L. A. Upson; Secretary, Treasurer and Cashier, Willis Gowdy.

THE TRUST AND SAFE DEPOSIT COMPANY OF NEW HAVEN. Capital, \$20,000. President, T. Atwater Barnes; Secretary and Treasurer, Fred. B. Bunnell.

THE UNION TRUST COMPANY, New Haven. Capital, \$100,000. President, Henry L. Hotchkiss; Treasurer, Wm. S. Bartlett.

SUMMARY OF THE CONDITION OF CONNECTICUT TRUST COMPANIES OCTOBER 1, 1896.

ASSETS.		LIABILITIES.	
Loans and discounts	\$4,557,909 65	Capital stock	\$1,245,000 00
Overdrafts	7,090 33	Surplus	382,765 64
Stocks, bonds and mortgages	1,570,509 70	Undivided profits	343,414 56
Due from banks and bankers	649,255 89	Dividends unpaid	1,263 88
Real estate, furniture and fixtures . .	395,652 95	Deposits	5,481,292 07
Current expenses	26,075 68	Due to banks and bankers	68,644 01
Specie and currency	247,243 59		
Checks and cash items	68,642 34		
		Total liabilities	\$7,522,380 13
Total assets	\$7,522,380 13		

CONNECTICUT SAVINGS BANKS.

BERLIN SAVINGS BANK, Kensington. Deposits, \$205,680.93. President, William Bulkeley; Treasurer, Willis H. Upson.

BRANFORD SAVINGS BANK. Deposits, \$52,941.09. President, John Hutchinson; Treasurer, Walter Foote.

BRIDGEPORT SAVINGS BANK. Deposits, \$4,192,584.37. President, Samuel C. Trubee; Treasurer, Alexander Hawley.

BRISTOL SAVINGS BANK. Deposits, \$1,694,630.02. President, Henry A. Seymour; Treasurer, Miles Lewis Peck.

BROOKLYN SAVINGS BANK. Deposits, \$913,531.23. President, Marvin H. Sanger; Treasurer, C. A. Potter.

BURRITT SAVINGS BANK, New Britain. Deposits, \$214,457.90. President, L. Hoyt Pease; Treasurer, W. E. Attwood.

CANAAN SAVINGS BANK. Deposits, \$170,312.22. President, John B. Reed; Treasurer, Joseph W. Peet.

CHELSEA SAVINGS BANK, Norwich. Deposits, \$5,532,368.17. President, Edward Harland; Treasurer, George D. Coit.

CHESTER SAVINGS BANK. Deposits, \$231,170.64. President, Charles L. Griswold; Treasurer, Edward C. Hungerford.

CITIZENS' SAVINGS BANK. Deposits, \$1,957,159.75. President, Charles Gaylor; Treasurer, Henry V. Riker.

CITY SAVINGS BANK, Bridgeport. Deposits, \$3,526,835.32. President, David F. Hollister; Treasurer, William B. Hincks.

CITY SAVINGS BANK, Meriden. Deposits, \$1,552,990.54. President, John D. Billard; Treasurer, Floyd Curtis.

COLCHESTER SAVINGS BANK. Deposits, \$222,533.92. President, A. A. Baker; Treasurer, J. N. Adams.

COLLINSVILLE SAVINGS SOCIETY. Deposits, \$620,546.34. President, George W. Flint; Treasurer, John D. Andrews.

- CONNECTICUT SAVINGS BANK, New Haven. Deposits, \$5,911,298.39. President, Burton Mansfield; Treasurer, Elliott H. Morse.
- DEEP RIVER SAVINGS BANK. Deposits, \$1,220,933.10. President, Asa R. Shailer; Treasurer, Henry R. Wooster.
- DERBY SAVINGS BANK, Birmingham. Deposits, \$2,526,405.69. President, William E. Downes; Treasurer, Thos. S. Birdseye.
- DIME SAVINGS BANK, Cromwell. Deposits, \$140,362.93. President, George S. Wilcox; Treasurer, Arthur Boardman.
- DIME SAVINGS BANK, Hartford. Deposits, \$934,264.93. President, Alfred E. Burr; Treasurer, Thomas M. Smith.
- DIME SAVINGS BANK, Norwich. Deposits, \$1,932,104.44. President, Edward R. Thompson; Treasurer, Frank L. Woodard.
- DIME SAVINGS BANK, Wallingford. Deposits, \$416,355.24. President, L. M. Hubbard; Treasurer, Leonard B. Bishop.
- DIME SAVINGS BANK, Waterbury. Deposits, \$2,989,482.35. President, Henry H. Peck; Treasurer, Guernsey S. Parsons.
- ESSEX SAVINGS BANK. Deposits, \$622,853.00. President, James Phelps; Treasurer, L. L. Wooster.
- FAIRFIELD COUNTY SAVINGS BANK, Norwalk. Deposits, \$711,905.97. President, Asa B. Woodward; Treasurer, Victor S. Selleck.
- FALLS VILLAGE SAVINGS BANK. Deposits, \$627,633.78. President, E. W. Spurr; Treasurer, Henry C. Gaylord.
- FARMERS' AND MECHANICS' SAVINGS BANK, Middletown. Deposits, \$2,403,444.55. President, John M. Douglas; Treasurer, Fred B. Chaffee.
- FARMINGTON SAVINGS BANK. Deposits, \$3,153,468.67. President, Franklin Wheeler; Treas., Julius Gay.
- FREESTONE SAVINGS BANK, Portland. Deposits, \$430,424.44. President, F. Gildersleeve; Treasurer, Jno. H. Sage.
- GREENWICH SAVINGS BANK. Deposits, \$181,959.73. President, Robert M. Bruce; Treasurer, Charles E. Merritt.
- GROTON SAVINGS BANK, Mystic. Deposits, \$771,572.06. President, Henry B. Noyes; Treasurer, A. H. Simmons.
- GUILFORD SAVINGS BANK. Deposits, \$178,288.84. President, E. H. Butler; Treasurer, Charles Griswold.
- HIGGANUM SAVINGS BANK. Deposits, \$15,961.51. President, George M. Clark; Treasurer, Clement S. Hubbard.
- INDUSTRIAL SAVINGS BANK, Bridgeport. Deposits, \$3,170.53. President, Patrick Coughlin; Treasurer, J. F. Noble.
- JEWETT CITY SAVINGS BANK. Deposits, \$787,939.25. President, H. L. Reade; Treasurer, F. E. Robinson.
- LITCHFIELD SAVINGS SOCIETY. Deposits, \$1,138,528.97. President, George M. Woodruff; Treasurer, Charles H. Coit.
- MARINERS' SAVINGS BANK, New London. Deposits, \$2,032,802.44. President, Daniel D. Latham; Treasurer, John E. Darrow.
- MECHANICS' SAVINGS BANK, Hartford. Deposits, \$3,638,022.95. President, Daniel Phillips; Treasurer, Ward W. Jacobs.
- MECHANICS' SAVINGS BANK, Winsted. Deposits, \$1,023,507.69. President, Charles B. Hallett; Treasurer, Lyman R. Norton.
- MECHANICS' AND FARMERS' SAVINGS BANK, Bridgeport. Deposits, \$1,589,543.70. President, D. N. Morgan; Treasurer, L. S. Catlin.
- MERIDEN SAVINGS BANK. Deposits, \$2,826,815.32. President, Levi E. Coe; Treasurer, W. H. Catlin.
- MIDDLETOWN SAVINGS BANK. Deposits, \$6,363,616.08. President, George A. Coles; Treasurer, Henry H. Smith.
- MILFORD SAVINGS BANK. Deposits, \$272,581.78. President, George M. Gunn; Treasurer, W. Cecil Durand.
- MOODUS SAVINGS BANK. Deposits, \$318,883.31. President, Charles E. Brownell; Treasurer, Eugene W. Chaffee.
- NATIONAL SAVINGS BANK, New Haven. Deposits, \$1,606,197.59. President, Maier Zunder; Treasurer, Julius Twiss.
- NAUGATUCK SAVINGS BANK. Deposits, \$720,223.30. President, William Ward; Treasurer, Adelbert C. Tuttle.

- NEW CANAAN SAVINGS BANK. Deposits, \$83,865.95. President, Edwin Hoyt; Treasurer, George F. Lockwood.
- NEW HAVEN SAVINGS BANK. Deposits, \$8,813,019.39. President, Samuel E. Merwin; Treasurer, Robert A. Brown.
- NEW MILFORD SAVINGS BANK. Deposits, \$1,066,669.72. President, Isaac B. Bristol; Treasurer, H. LeRoy Randall.
- NEWTOWN SAVINGS BANK. Deposits, \$625,231.19. President, Philo Clarke; Treasurer, Charles H. Northrop.
- NORFOLK SAVINGS BANK. Deposits, \$154,333.32. President, Hiram P. Lawrence; Treasurer, M. N. Clark.
- NORWALK SAVINGS SOCIETY. Deposits, \$2,461,194.02. President, George M. Holmes; Treasurer, George E. Miller.
- NORWICH SAVINGS SOCIETY. Deposits, \$11,189,894.14. President, John Mitchell; Treasurer, Costello Lippitt.
- PEOPLE'S SAVINGS BANK, Bridgeport. Deposits, \$2,769,200.08. President, William E. Seeley; Treasurer, Edward W. Marsh.
- PEOPLE'S SAVINGS BANK, Middletown. Deposits, \$552.11. President, S. M. Bacon; Treasurer, W. K. Bacon.
- PEOPLE'S SAVINGS BANK, Pawcatuck. Deposits, \$121,915.21. President, P. S. Barber; Treasurer, J. A. Brown.
- PEOPLE'S SAVINGS BANK, Rockville. Deposits, \$464,209.58. President, Geo. M. Paulk; Treasurer, E. S. Henry.
- PUTNAM SAVINGS BANK. Deposits, \$1,701,304.57. President, John H. Gardner; Treasurer, J. Tourtelotte.
- RIDGEFIELD SAVINGS BANK. Deposits, \$302,333.17. President, Lewis H. Bailey; Treasurer, D. Smith Sholes.
- SALISBURY SAVINGS SOCIETY, Lakeville. Deposits, \$677,919.99. President, Geo. B. Burrall; Treasurer, Thos. L. Norton.
- SAVINGS BANK OF ANSONIA. Deposits, \$1,198,334.02. President, William B. Bristol; Treasurer, Franklin Burton.
- SAVINGS BANK OF DANBURY. Deposits, \$2,834,166.60. President, John W. Bacon; Treasurer, Henry C. Ryder.
- SAVINGS BANK OF NEW BRITAIN. Deposits, \$2,732,682.36. President, Levi S. Wells; Treasurer, W. F. Walker.
- SAVINGS BANK OF NEW LONDON. Deposits, \$4,689,683.83. President, William H. Chapman; Treasurer, Walter Learned.
- SAVINGS BANK OF ROCKVILLE. Deposits, \$1,447,917.53. President, B. H. Bill; Treasurer, L. Bissell.
- SAVINGS BANK OF STAFFORD SPRINGS. Deposits, \$386,691.03. President, Chas. Warren; Treasurer, Alvarado Howard.
- SAVINGS BANK OF TOLLAND. Deposits, \$157,401.96. President, Charles Underwood; Treasurer, Frank T. Newcomb.
- SHELTON SAVINGS BANK. Deposits, \$65,650.14. President, Watson J. Miller; Treasurer, J. Tomlinson.
- SOCIETY FOR SAVINGS, Hartford. Deposits, \$16,747,852.22. President, John C. Parsons; Treasurer, A. E. Hart.
- SOUTHINGTON SAVINGS BANK. Deposits, \$995,368.83. President, W. S. Plumb; Treasurer, L. B. Neal.
- SOUTH NORWALK SAVINGS BANK. Deposits, \$811,247.68. President, Alden Solmans; Treasurer, John H. Knapp.
- SOUTHPORT SAVINGS BANK. Deposits, \$654,256.46. President, John H. Perry; Treasurer, Charles C. Perry.
- STAFFORD SAVINGS BANK, Stafford Springs. Deposits, \$515,375.50. President, Edward C. Pinney; Treasurer, Charles F. Harwood.
- STAMFORD SAVINGS BANK. Deposits, \$2,769,120.51. President, George H. Hoyt; Treasurer, Franklin Miller.
- STATE SAVINGS BANK, Hartford. Deposits, \$4,232,647.02. President, Samuel Taylor; Treasurer, Miles W. Graves.
- STONINGTON SAVINGS BANK. Deposits, \$681,628.78. President, Richard A. Wheeler; Treasurer, D. B. Spaulding.

SUFFIELD SAVINGS BANK. Deposits, \$163,229.36. President, M. T. Newton; Treasurer, Martin H. Smith.

THOMASTON SAVINGS BANK. Deposits, \$437,966.94. President, John H. Wood; Treasurer, Henry E. Stoughton.

THOMPSON SAVINGS BANK OF PUTNAM. Deposits, \$479,088.95. President, George H. Nichols; Treasurer, Elmer C. Wood.

TORRINGTON SAVINGS BANK. Deposits, \$805,105.34. President, Elisha Turner; Treasurer, Isaac W. Brooks.

UNION SAVINGS BANK, Danbury. Deposits, \$1,214,036.03. President, S. C. Holley; Treasurer, Levi P. Treadwell.

WATERBURY SAVINGS BANK. Deposits, \$3,425,229.80. President, Edward L. Frisbie; Treasurer, F. J. Kingsbury.

WATERTOWN SAVINGS BANK. Deposits, \$85,940.61. President, Augustus N. Woolson; Treasurer, Burton H. Mattoon.

WESTPORT SAVINGS BANK. Deposits, \$106,142.17. President, George S. Adams; Treasurer, B. L. Woodworth.

WEST SIDE SAVINGS BANK, Waterbury. Deposits, \$91,915.11. President, J. R. Smith; Treasurer, Burton G. Bryan.

WILLIMANTIC SAVINGS INSTITUTE. Deposits, \$610,037.61. President, Silas F. Loomer; Treasurer, Noah D. Webster.

WINDHAM COUNTY SAVINGS BANK, Danielson. Deposits, \$561,517.25. President, James Perkins. Treasurer, C. C. Young.

WINDSOR LOCKS SAVINGS BANK. Deposits, \$131,815.43. President, Wm. Mather; Treasurer, A. W. Converse.

WINSTED SAVINGS BANK, West Winsted. Deposits, \$1,312,150.61. President, John Hinsdale; Treasurer, George S. Rowe.

WOODBURY SAVINGS BANK. Deposits, \$142,428.74. President, Edward Cowles; Treasurer, Homer S. Tomlinson.

SUMMARY OF THE CONDITION OF CONNECTICUT SAVINGS BANKS, OCTOBER 1, 1896.

ASSETS.				
	October 1, 1896.	October 1, 1895.	Increase.	Decrease.
Loans on Real Estate	\$60,083,073.73	\$57,657,685.50	\$2,425,388.23	
Loans on Collateral Security	8,605,988.45	8,225,120.20	380,868.25	
Loans on Personal Security only	3,637,511.98	3,104,023.21	533,488.77	
Invested in United States Bonds	2,261,243.00	1,667,530.10	593,712.90	
Invested in State, Town, City and Corporation Bonds, }	38,993,830.90	37,014,730.56	1,979,100.34	
Invested in Railroad Stocks and Bonds . .	31,236,627.56	29,999,765.77	1,236,861.79	
Invested in Bank Stocks	6,698,759.51	6,698,159.73	599.78	
Real Est. owned, including Banking Houses	2,730,275.85	2,835,882.81		105,606.96
Miscellaneous Assets	704,504.52	809,373.89		104,869.37
Cash on hand and in Bank	4,474,318.11	4,516,304.26		41,986.15
Total Assets	\$159,426,133.61	\$152,528,576.03	\$7,150,020.06	\$252,462.48
LIABILITIES.				
	October 1, 1896.	October 1, 1895.	Increase.	Decrease.
Deposits	\$149,496,555.86	\$143,159,123.05	\$6,337,432.81	
Surplus	6,159,416.18	5,873,000.08	286,416.10	
Interest and Profits and Loss	3,708,422.12	3,443,674.45	264,747.67	
Other Liabilities	61,739.45	52,778.45	8,961.00	
Total Liabilities	\$159,426,133.61	\$152,528,576.03	\$6,897,557.58	

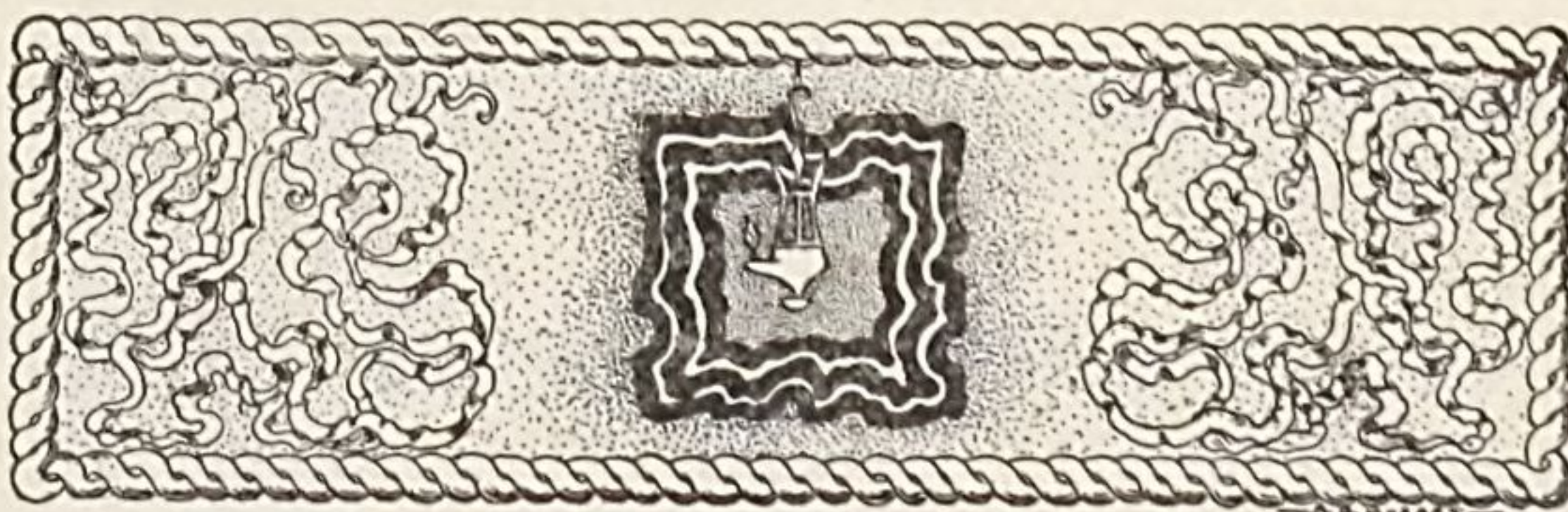
BUILDING AND LOAN ASSOCIATIONS, OCTOBER 1, 1896.

	Assets.
Bridgeport Savings and Loan Association,	\$143,064.06
Connecticut Building and Loan Association,	615,667.54
The Co-operative Savings Society of Connecticut,	1,058,040.32
First Meriden Mutual Benefit Building and Loan Association,	66,482.74
The Hartford Building and Loan Association,	209,123.94
Meriden Permanent Building and Loan Association,	64,730.57
Middletown Building and Loan Association,	102,105.65
New Britain Co-operative Savings and Loan Association,	118,325.94
New Haven Building and Loan Association,	41,897.39
New Haven Co-operative Savings Fund and Loan Association,	35,087.03
New Haven Progressive Building and Loan Association,	18,860.40
Norwalk Building, Loan, and Investment Association,	81,327.06
Second Meriden Mutual Benefit Building and Loan Association,	71,168.14
The Shelton Loan and Savings Institution,	16,413.75
Stamford Co-operative Building and Loan Association,	13,858.76
Willimantic Building and Loan Association,	51,772.71
Total	\$2,707,926.00

MORTGAGE INVESTMENT COMPANIES, OCTOBER 1, 1896.

	Assets.
1 Eastern Banking Co., Hartford,	\$548,910.43
2 Equitable Trust Co., New London,	1,672,243.27
3 Iowa Mortgage Co., Hartford,	218,129.49
4 Loan and Guarantee Co., Hartford,	400,770.36
5 Middlesex Banking Co., Middletown,	8,760,693.90
6 New England Mortgage Security Co., Brooklyn,	2,551,880.56
7 Thames Loan and Trust Co., Norwich,	118,786.18
8 Western Security Co., Hartford,	328,446.03
Total,	\$14,599,860.22

1, Principal place of business, Boston, Mass. Has paid no dividends for five years. 2, Principal place of business, New York. In liquidation. 3, In the hands of a receiver. 4, Has paid no dividend since 1891. 5, The only one of these companies understood to be doing new business. It paid dividends of 7% in 1895. 6, Principal place of business, Boston, Mass. For the last two years it has paid dividends at the rate of 4%. 7, In liquidation. 8, Principal place of business, Boston, Mass. Has paid no dividends for five years.



CHAPTER LXI.

THE CONNECTICUT MEDICAL SOCIETY—THE CONNECTICUT HOMŒOPATHIC MEDICAL SOCIETY.

BY N. E. WORDIN, M.D., BRIDGEPORT.



THE Connecticut Medical Society celebrated its one hundredth anniversary on the twenty-fifth, twenty-sixth, and twenty-seventh of May, 1892. Its place of assembling was the beautiful Dwight Hall, the building of the Y. M. C. A., upon the University Grounds, New Haven. On the afternoon of the first day the Society was entertained with a ride in carriages up the west, and down the east, side of East Rock, all of which has been laid out into a spacious city park. Upon any clear day the ride is a delightful one. From the summit, nearly five hundred feet, the city with its varied active industries lies before you. At your feet like a thread winds the Quinnipiac, which, spreading out to form the harbor, broadens into Long Island Sound, dotted with sails of merchandise and pleasure. To the west stands the companion cliff, West Rock, where hid the regicides. Judges' Cave is a reminder of king-craft, from which the settlers sought and found deliverance.

The centennial meeting of this organization was in as great a contrast with its beginning, as is the state and its municipalities now and one hundred years ago. At that time there were but two cities in the land as large as New Haven is now, the college contained but one hundred and twenty-five students, and a half century passed before George Williams founded the first Young Men's Christian Association.

The first meeting of the society was held in Middletown "agreeably to charter," on the second Tuesday of October, 1792. There were present five Fellows from each county, excepting that Middlesex and Tolland had three each. Leaveritt Hubbard was chosen president; Eneas Munson, vice-president; John Osbourn, treasurer; and Jared Potter, secretary. The record book now lies before me, as distinct and clear as if graven with burin upon steel. A committee was appointed to prepare by-laws, the county clerks were directed to report the names of members, to collect the tax of three shillings, and after making other arrangements the session adjourned to meet "at the house of David Bull on the Wednesday next after the second Thursday in May next, at ten o'clock A.M."

The by-laws which were adopted are so indicative of the character of the men and of their purpose in forming the Society, that I may be pardoned for copying the doings of the second day, Thursday, of that second meeting at the house of David Bull, innholder.

At a meeting of the Medical Society holden by adjournment at Hartford on the 15th day of May, 1793:

Be it ordained that the Secretary of the Connecticut Medical Society shall record all the transactions of the Convention, and conduct their correspondence, have the custody of the seal of the Society.

Be it ordained that the Treasurer shall keep the monies of the Society, subject to their orders, and shall annually render an account to the Convention of all monies received and paid by him.

Be it ordained that an auditor of accounts shall be annually appointed who shall examine all claims upon the Society; if allowed, shall draw orders on the Treasurer for the amount, and no money be paid on any account without such orders. And said Auditor shall annually lay before the convention the Several accounts so examined and allowed, with the amount of the orders he shall draw upon the treasurer.

Be it ordained that it shall be the duty of the examining committees in the several counties to make an annual return to the Secretary of the Society, of the Several persons by them licensed, the date of their licenses, an entry shall be made in the records of the Society of every license granted, containing the name of the person licensed, of the President and examining Committee signing the same.

Be it ordained that all communications from members of this State shall be made to the clerks of the county meetings, and by them shall be laid before such meetings for examination, and, if approved by the county meetings, shall be transmitted to the Secretary of the Society to be laid before the Convention.

Be it ordained that it shall be highly disreputable for any member to assume or hold the knowledge of any Nostrum, or palm any medicine, or composition on the people as a secret, and that any such member shall be deemed unworthy to belong to the medical Society; And that the members of the Society shall hold no medical correspondence with such characters nor consult with them in any medical case whatever; And that all pretenders to Nostrums shall be deemed and considered proper subjects for expulsion from this Society.

Resolved, That the Secretary be directed to procure a publication in the several papers of the State the bye-laws of the Connecticut Medical Society.

Voted, That a tax of three shillings be laid on each member of the Connecticut Medical Society, and collected on or before the fourth Tuesday of September next by the clerks of the respective county conventions to which they belong, and said clerks shall be responsible to the Treasurer for the same.

Voted, That the President and Fellows of the Connecticut medical Society shall receive six shillings per day, for each member while attending in medical convention, and sixpence pr Mile while travelling from their several places of abode to the convention.

Voted, That no member speak more than twice in any debate, unless to explain himself, wherein he has not been properly understood.

Voted, That the Society transmit an answer to the letter received from the faculty of medicine of Columbia College, New York, by their Secretary.

Voted, That the thanks of the Fellows of the Connecticut medical Society be returned by the Vice-president to the President of the Society for his elegant oration delivered at the opening of the present convention, that a copy be requested of him to remain on the files of the Society.

Voted, That the next convention of the Connecticut medical Society, shall be at the city of N. Haven, on Wednesday, the 16th of October next, at the house of John Smith, innholder, at ten o'clock A. M.

JARED POTTER, *Secretary*.

They had secured their charter after prolonged effort. The story has been delightfully told by Dr. Francis Bacon in his Centennial Address. Doctors Bronson, of New Haven; Ashbel Woodward, of Franklin; George Sumner and E. K. Hunt, of Hartford, and Rufus Blakeman, of Fairfield, have each made valuable contributions, so that my task is mostly that of a compiler, and I shall borrow as needed, from these, the real historians.

The eleven physicians who petitioned the General Assembly of the colony of

Connecticut continued their organization and are the oldest medical society in the country. They are perpetuated in the New London County Medical Association. It was in 1763, before any army surgeons could form the nucleus of an organization, and long before the colony became a state. And yet three of the subscribers to the memorial, Theophilus Rogers and Philip Turner, of Norwich, and John Downer, of Preston, lived to see the Connecticut Medical Society incorporated and to take part in its deliberations. The original petition may be seen in the archives of the state library and is as follows :

“To the Honourable General Assembly of the Colony of Connecticut to be Held at New Haven the second Thursday of October next.

“The Memorial of us the Subscribers, Physicians in said Colony Humbly showeth That whereas Life is the most Desirable of all Sublunary Enjoyments and Health so Invaluable a Blessing that without it in some Degree Life is Little Worth And that the Promoting Medical Knowledge among Physicians is the Necessary and direct means to Restore health and even Preserve Life and is of great Importance as it will Render the Practice of Physic more safe and Serviceable to the Patient And at the same time yeald more Satisfaction and Honour to the Profession And whereas more than one hundred years have already passed away since the Planting this Colony and Nothing has been Publickly done to Distinguish between the Honest and Ingenious Physician and the Quack or Empirical Pretender by reason of which Imposture and Imposition has been and still is but too commonly Practiced among us to the great Injury of the People as well as the Disparigment of the Profession We your Honours' Memorialists would therefore humbly pray your Honours to Take the Matter under your wise Consideration and Order Enact that the Physicians in each County in this Colony for their Mutual Edification and Instruction have Liberty and power To meet Together in their Respective County's at such time and Place as they shall Appoint once in three months and at the first of such their Meetings choose a Committee of three or More approved Physicians to Continue for the Space of one year and Annually to be Chosen such Committee for the time Being to have full power to Examine and if found duly Qualified Approve such Candidates for the Practice of Physic who shall offer themselves for Examination and if any Person offering himself shall be Adjudged not Qualified and so not Approved by such Committee that such Person may apply himself to any Quarterly meeting in the same County and be there Examined and Determined by such meeting and Approved if they think Fit by Proper Certificate and that for the future no Person or Persons that are not Already deemed Physicians who shall pretend to Practice Physic without such Approbation first had And Obtained Appearing by Proper Certificate be Allowed to Bring or Maintain any Action against any Person or Persons To Recover any Debt Demand or any other thing for any service he or they shall Pretend to have done or Presumed as a Physician—Or otherwise Enact and order some proper regulation for the Practice of Physic as in your Wisdom shall be thought most Proper And as in Duty bound Shall ever Pray Dated at Norwich the 27th day of Sept. 1763.”

The document was as original in its way as the Constitution of Connecticut, adopted more than a hundred years before. There was not in the land an incorporated medical society, nor an organized medical school, nor any authority to confer a medical degree. The step was far in advance of its time. The same spirit moved the physicians of the western part of the state. Two years later, in 1765, Litchfield county effected a medical organization, although, so far as I know, its record is not available.

The New Haven County Society dates its beginning from 1783.

Whether it was owing to their proximity to the meetings of the Assembly ; whether they were more persistent, whether their clientage was of that body or whether the time was more opportune, certain it is that they were very influential in securing the long-desired charter.

In the Connecticut *Journal* of December 10, 1783, appeared a notice signed by

five prominent physicians, requesting the physicians and surgeons of New Haven county to meet at the coffee-house in New Haven, on the first Monday of January next ensuing at 2 P. M., "In order to form regulations within the line of their profession, of the utmost importance to the public and themselves." This was the beginning of the New Haven County Medical Association. They went to work vigorously. Circulars were sent to physicians throughout the state, meetings of delegates were held in Hartford and New Haven when the Legislature assembled; memorials were frequently presented which as often failed, either by absolute refusal of the legislators or by disagreement between the two branches of the state government. They sought "legal sanction to examine candidates for practice and to issue valid certificates of qualifications. They held up as examples other well-ordered governments which had encouraged an accurate study in the theory and practice of physic and surgery by favoring the establishment of medical societies." They call to notice the many important and useful discoveries in anatomy, chemistry and botany and the many accurate histories and cures of diseases, which never would have been explained, methodized and publicly authenticated, unless societies had been so established for the preservation and diffusion of mutual improvement. The movement attracted the people of the state. The college partook of the excitement, and on the 15th of July, 1788, the seniors discussed the question "Whether it be safe to grant the proposed charter of the Connecticut Medical Society?" and on the 6th of January following, the question, "Whether the institution of medical societies be useful?"

The opposition urged against the granting of the charter was that "the main purpose of it was to increase the pecuniary emolument of the faculty; besides, it was not customary to make laws for the benefit of particular classes." There was apprehension that danger might come from special privileges and monopoly. How well we remember that after more than a hundred years the same objections were urged against the Medical Practice Act, which was adopted after long preparation and much hard labor, in 1893.

The charter was granted in 1792. It must have been pleasing to its promoters. The resolution by which it was introduced, reads:—

WHEREAS, well-regulated medical societies have been found to contribute to the diffusion of true science, and particularly the knowledge of the healing art; Therefore, Be it enacted by the Governors and Council and House of Representatives in General Court Assembled,—That there be a Medical Society formed within this State, &c.

The working of the organization was practically the same as now: County meetings at which Fellows shall be elected, three from Middlesex and Tolland, five from the others, to examine and license candidates, to confer honorary degrees, to hold property not to exceed \$16,667, to communicate useful information to each other and to publish such extraordinary cases and observations as they may deem proper. Accordingly organizations were immediately formed in counties where they had not previously existed, and thus have they continued. The County Association is the unit in the Medical Society, just as the town is in the government of the state.

If we take pride in our little state, whose emblem is the three transplanted vines, this study of its earliest medical organization is a source of gratification and of patriotic pride. These men were,

"With sense, above their peers refined."

Massachusetts, New Jersey and New Hampshire, were the only states where medical

societies existed. The only medical colleges were that of the University of Pennsylvania, founded in 1765, King's College, now Columbia, 1768, and Harvard, 1782. Few physicians had degrees. Medical instruction was for the most part private. It is not strange that quackery should have been prevalent. Irregularities had crept into the church. Anne Hutchinson and her Antinomian doctrines, Roger Williams and his plea for liberty of conscience, Mary Dyer, the Quaker, who was hung upon Boston Common, had made dissensions and divisions in church and state, and so in the medical profession were those who worshipped false gods. It was an age of medical systems and theories. "All preceding history," says Baas, "is scarcely so rich in them." There was no basis for fact. Speculation, theory, were easy. It was the transition period between cutting loose from the ancient theories of the old hemisphere and the establishing of a standard either of teaching or of research for the new. There were able men who eagerly investigated and soon began to write upon the prevalent diseases. There were surgeons who had gained knowledge in the war recently ended. These became fretful, impatient and perhaps provoked at the more ignorant ones who, pretending to know, plied their trade and reaped their harvest to the injury of both patients and good practitioners; following Ben Jonson's advice,

"Get money; still get money, boys;
No matter by what means,
And then let virtue follow, if she will."

All through the proceedings, up to within twenty-five years ago, occur resolutions denouncing the various innovations of Perkinism, Thomsonianism, homœopathy and other schemes for getting money easily. They began early in the history of the society. In 1796, a few years only after its organization, appears this record: "*Voted*, it having been represented to this society that one of their members had gleaned up from the miserable remains of animal magnetism, a practice consisting of stroking with pointed metallic instruments the pained parts of human bodies, giving out that such strokings will radically cure the most obstinate pains to which our frame is incident, causing false reports to be propagated of the effects of such strokings, especially where they have been performed on some public occasions, and on men of distinction; also, that an excursion has been made abroad and a patent obtained from under the Authority of the United States to aid such delusive quackery—that, under such auspices, as membership of this society & the patent above mentioned, the delusion is progressing to the southward, which may occasion disgrace to the Society & mischief abroad; wherefore this Society announces to the public that they consider all such practices as barefaced imposition, disgraceful to the faculty & delusive to the ignorant: and they further order their secretary to cite any member of this Society practicing as above, before them at their next meeting to answer for his conduct, & render reasons why he should not be expelled from the Society for such disgraceful practices."

No name is mentioned, but with such definite charges but one person could be intended. It was Elisha Perkins, who seems to have departed from the faith with less reason, because his father, Dr. Joseph Perkins, was a daring and successful surgeon, ardent in the pursuit of knowledge and a man of piety. Most of the capital operations of the surrounding country were performed by his hand. Attempting on one occasion a hazardous operation, the patient, a slave, died under the knife. Chagrined at the loss, the master charged the surgeon with having sent his victim prematurely to the devil. "It is fortunate," said Perkins, "that the only loss falls upon the owner, as the slave could not possibly suffer from an exchange of masters."

More successful were they with Dr. Mark Newell, who, cited to appear before the convention, did so and made affidavit to the composition of his Jaundice Pills or family physic. In like manner, Dr. Samuel H. P. Lee, of New London, having lodged with the Secretary of the Medical Convention of the State the recipe of Lee's patent New London Bilious Pills, subscribed under oath, and having consented that any member of the Medical Society of this state shall have the liberty of making and using in his practice the said pills, the said Lee's patent to the contrary notwithstanding: therefore resolved, that the said Samuel H. P. Lee be considered as in regular standing in the Connecticut Medical Society. Nor did the followers of the new and taking idea of Homœopathy escape the ban. In 1857, William H. Sage, of Unionville, was expelled, "under the by-law which makes it the duty of the Medical Society to expel any member notoriously in the practice of homœopathy, hydropathy, or any other form of quackery."

The state of Connecticut has an exceedingly interesting medical history. Fortunate in her founders, her sons have continued to bring honor upon her. Trumbull, Sherman and Ellsworth were statesmen. No less great in the line of their life-work were Philip Turner, of the Revolutionary period, and Nathan Smith and Jonathan Knight, our two teachers of surgery. Indeed, from the beginning of the colony medical men were prominent in affairs. John Winthrop, Jr., scholar, lawyer, soldier, diplomat, traveler, magistrate, governor, Fellow of the Royal Society, was a physician. At our centennial meeting Dr. James R. Chadwick, of Boston, was present with a collection of twenty-two letters addressed to Governor Winthrop, asking advice in cases of sickness. Indeed, history reads that in 1654 the governor was desired to write a letter to John Winthrop, inviting him to come and live at New Haven "if he doe remove from Pequott." He was especially desired as a physician, and did remove and live there for about two years, when he went to Hartford. "In 1656 Mrs. Finch, of Westchester, came to New Haven and rented a house, in order that her lame child might have the benefit of John Winthrop's surgical skill."

The character, fame and family of Gershom Bulkeley should be mentioned here. Born upon the sea, he had the education of the old country, the practice of the new. Acquiring a classical education, he studied divinity and medicine. Pastor of the churches at New London and Wethersfield, he was a surgeon of the colonial forces in the Indian wars. For the last thirty years of his life a practicing physician, he was also a magistrate who maintained the dignity of his station while he dispensed charity to the weak and justice to all. The first case of medical jurisprudence in the colony, perhaps the first in the country, was referred to him for an opinion. Mercy Brown, of Wallingford, was brought to trial for the murder of her son. It was known that she had been subject to paroxysms of insanity, and the court and jury were in perplexity as to what to do. The court granted leave to the jurors to consult the most learned men in the colony, and obtain their advice. It shows the estimation in which Dr. Bulkeley was held that they referred to him. His opinion as given was, "If she were not *compos mentis* at the time of the fact, it is no felony, and consequently no willful or malicious murder; and if she be known as a lunatic, though she have her lucid intervals, there need be very good and satisfactory proof that she was *compos mentis* at the time of the fact committed, for the law favors life." He devoted the last thirty years of a useful life to the cares and responsibilities of the medical profession.

One thing is very apparent to the student of those times—the early physicians were also spiritual feeders of the flock. The two professions, ever closely united, were at that time warp and woof. A medical education could not be had in this

country. Those who had acquired it in England could not gain a livelihood by it in this sparsely-settled land. But those who were coming with their people like missionaries of the present day, like them also learned to minister to the body as well as the soul diseased. I can mention only a few of these, although many of them became famous. Jared Eliot, grandson of the apostle to the Indians, was the earlier and most renowned. While discharging in full measure the duties of his pastorate, he found time to make himself eminently useful as a physician, an agriculturist, a scientific investigator and an author.

Rev. Phineas Fiske, tutor at Yale, 1706-1713, was particularly distinguished, says Thacher, in his *American Medical Biography*, for the cure of epilepsy and insanity. He was a noted teacher of medicine.

Dr. Eneas Munson graduated at Yale in 1753 and studied divinity, preaching for a while, but was afterwards an active and prudent physician until his death. He is of interest to us as the second president of our society, whose personal worth and professional merit kept him in office for seven years.

Rev. Anthony Stoddard, of Woodbury, was one of the eminent clerical physicians of the colony. Cothren, the historian of that town says, "Like many of the early ministers he prepared himself for the practice of medicine, that he might administer to the wants of the body as well as those of the mind."

Charles Chauncey, the second President of Harvard College, graduated in both divinity and medicine at Cambridge, and is said to have been of the opinion that there ought to be no distinction between them, educating his six sons in both professions. There is a temptation to linger in this primitive period of American medical history.

It was in 1763 that the eleven physicians of Norwich petitioned for a charter. It was fifty-five years before one was obtained. Between those times was the Revolution; just before the earlier date the French and Indian War. In both of these the physicians of the colony were active, not only as medical men, but in actual service with sword and musket. In the Pequot war Gershom Bulkeley was surgeon of the forces raised in Connecticut, and received fourteen shillings per week. In the expedition against Louisburg, Drs. Reed, of Simsbury, Durand, of Derby, and Wheeler, of Stratford, were chosen by the Court as medical attendants. With the army sent against Crown Point, Philip Turner began a service in which he afterwards became famous. Assistant-surgeon in the French War, he was made surgeon-general of the northern states during the Revolution. He was one of the memorialists of Norwich, and one of the original members of the incorporated society of the state. He was buried with military honors in the graveyard of old St. Paul's, New York. Dr. Shippen adds his tribute to his worth: "I have never seen, either in Europe or America, an operator who excelled him."

Nor was the war without its benefits to the physicians of the colony. From the time of the expedition against Louisburg, in 1742, down through the conflict with Canada, the British forces were accompanied by a medical staff of well-selected and well-educated physicians. They were compelled by the results of the war to establish hospitals. The young and untried physicians of the colonies were thus brought into contact with these educated and experienced surgeons of Europe. The effect was salutary. They became acquainted with surgical work, and patriotism and the excitement of the field and camp gave added zest and spirit. So were they ready in the Revolution to do their part.

The history of the Connecticut Medical Society before its organization has thus been seen to be brilliant and noble. It had men excelling in other departments of life. Nor, in later times, have its members been without distinction.

From the first the society has aimed to promote all philanthropic schemes, and has been successful in establishing in the state many permanent institutions of great blessing to it, and which redound to the good name of its citizens. The state owes a large debt to the profession for these ornaments and safeguards of its structure. One of these is the Yale Medical College. This is the first offspring, chartered when the society was but nineteen years old, under the name of The Medical Institute of Yale College. The first glimmer of the coming light is, perhaps, in the records of the year 1795, when it was resolved that a petition be presented to the General Assembly, now in session, praying some pecuniary assistance to aid the society in the pursuit of medical knowledge. At the same time questions were proposed for discussion and a reward offered for the best solution. One of these was, What is the most eligible mode of increasing and propagating medical knowledge in the state of Connecticut? But the practical move came from Yale College itself. At the meeting of the Medical Society, at the house of Amos Ransom, in Hartford, May 20, 1807, a letter was presented from a committee of the corporation of Yale College upon the subject of establishing a medical institution in that college. The president of the Medical Society, Dr. John R. Watrous, was desired to answer the communication, and a committee of conference was appointed. Articles of union between the two organizations were adopted. They are a part of the Incorporation of the Medical Institution which was passed at the October session of the Assembly, 1810. From that time until the dissolution of the bond, in 1885, the committee to examine medical graduates was taken equally from the college faculty and the Connecticut Medical Society. By this dismembering act the society gave up its part in the examinations, the appointment of the medical professors and the naming every year of two students from each county who might have medical education free. And yet no member dissented.

The next practical result of the philanthropic thought of the society was the Asylum for the Insane at Hartford. There were at this time in all the United States but three such institutions. Those were small and were near great cities. Not much had been done for these poor unfortunates, anywhere. Philippe Pinel had begun his reforms in the treatment of the insane, at the Salpêtrière, only in 1795. Yet in 1812, while the country was disturbed by the approaching war, at the convention held at New Haven, October 14, 1812, a communication was received from Dr. Nathaniel Dwight, of Colchester, upon the subject of a hospital for lunatics in this state. The work went very slowly on; committees and reports and—a decade. The act of Incorporation was passed in 1822. Besides its persistent work the society appropriated six hundred dollars “for the promotion of the objects of the asylum.” It was a very generous act for those days. The list of subscriptions contains many at one dollar each, and one for twelve and one-half cents. One of the provisions of the charter is that the Connecticut Medical Society may appoint a committee to nominate a physician to the retreat for the insane, to fill the vacancy in the superintendency of the asylum, when any may occur. This has happened four times.

A third great progeny of this society, started and carried to completion by its members, is the Connecticut General Hospital, at New Haven, the oldest hospital in the state. In 1825 “a communication having been received from the president, Thomas Hubbard, it was voted to refer so much of it as relates to the establishment of a general hospital in this state to the following committee: Doctors S. B. Woodward, Thomas Minor and Eli Ives. The society was in favor of the move. Voted unanimously, that we highly approve of the design to establish a general hospital in the city of New Haven, and that Doctors Ives, Knight and Hooker be a committee to procure an act of incorporation of a society to establish the same, and endeavor to procure

pecuniary aid from the legislature of the state, from such other sources as they may think best." The General Hospital Society of Connecticut was the result. The Board of Directors consisted of twelve persons, of whom eleven were members of the Medical Society, and four of the Faculty of the Medical College headed the subscription list, three of them with five hundred dollars each. During the war the influence of Dr. Jonathan Knight, professor of surgery, secured the addition of a United States Hospital, and many Connecticut soldiers found there a resting-place and cure from disease and wounds.

Thus the society has been instrumental in erecting a triple structure for the benefit of the state—a college for medical education, an asylum for ministering to the mind diseased, a hospital for the cure and relief of the sick and injured.

While always conservative the society has been progressive in its advocacy of things which were of unquestioned merit. The part taken by the Connecticut physicians in inoculation for small-pox is full of interest and has a romantic side. The part which members of the Connecticut Medical Society took in upholding the claim of Dr. Horace Wells to the discovery of anesthesia emphasizes the truth of that claim and makes them partakers of the history. The fiftieth anniversary of anesthesia has just passed, and the world is not yet unanimous as to whom the honor of the discovery is due. But the facts are as well known as they ever will be, and the answer we give will depend upon the form of the question asked. This cannot be gainsayed—Wells developed the idea and the practice of anesthesia. Morton's push and influence and his taking up with what has proved to be the better preparation, has kept his name more closely connected with the great discovery. For it was the practice, together with the promulgation of it, that gave these men their reputation. It was not the knowledge alone, nor the discovery alone. Else, there would be other names. Wells was not the first to discover the anesthetic properties of nitrous oxide gas. It was in 1799 that Sir Humphrey Davy made the discovery of its intoxicating effects and suggested that "it may probably be used with advantage in surgical operations." Morton was not the first one to know that ether would produce anesthesia, nor Warren the first to operate with its aid. Producing exhilaration by inhaling the seductive vapor of ether was a not uncommon amusement, even in the lecture-room. Professor Silliman did it; and Dr. Crawford W. Long, of Georgia, five times, during a period of three years, performed operations upon patients under ether. The great event is thus simply recorded by Dr. Long in his ledger: "James Venable, 1842, Ether and excising tumor, \$2.00."

Nor was it simply in the promulgation of the idea of anesthesia, for in 1784 an English surgeon, named James More, published a tract entitled, "A Method of Preventing or Diminishing Pain in Several Operations of Surgery," and in 1828 Mr. Hickman, a London surgeon, wrote a letter to King Charles XI., which letter was laid before the Academy of Medicine of Paris, in which he said that he had discovered the means of performing the most troublesome operations without pain by producing insensibility by the introduction of certain gases into the lungs. But when, in the winter of 1844, Horace Wells sat watching the effects upon young Samuel Cooley, of nitrous oxide gas, as administered by Dr. Colton, and in his enthusiasm and belief that that for which he had ardently longed, an agent capable of annulling pain during the extraction of a tooth, had been found, after submitting to an operation upon himself, cried out in delight, "I did not feel it so much as the prick of a pin: A new era in tooth pulling: It is the greatest discovery ever made," and continued to use it for weeks and months, anesthesia for surgical purposes was discovered for the world. The Connecticut Medical Society took an active part in main-

taining the right of Dr. Wells to the discovery. Some of its members, Hartford men, advised him that ether was more dangerous than gas, that the gas was more agreeable to inhale and equally efficacious. Among these advisers was Dr. P. W. Ellsworth. He gave his opinion in favor of the gas and advised Dr. Wells to confine himself to that agent. Doctors Jackson and Morton insisted that the gas was a failure; that it was not an anesthetic. To refute this, on the 1st of January, 1848, Dr. Ellsworth amputated the thigh of a young man who was under the effect of the gas. As this bears so directly upon the claim of Dr. Wells, I transcribe the clinical report kindly furnished me by Dr. Ellsworth's son.

AMPUTATION OF THE THIGH UNDER THE INFLUENCE OF NITROUS OXIDE GAS.*

There has been a great discussion relating to the priority of the discovery of the effects of ether and nitrous oxide gas, and it has been urged as an argument that nitrous oxide gas was inferior in power and, of course, not to be compared with the ether, and, in fact, worthless. It is surprising that some comparison has not been instituted by those who have made the operations. I have now the pleasure of announcing an operation probably as well calculated as could have been selected, taking all circumstances into consideration, for testing the nitrous oxide, and that, too, where ether had totally failed.

I was called Novemer 11, 1847, to see a son of Mr. Goodale, of East Hartford, aged fourteen, in consultation with Dr. Eli Hall. The lad was laboring under necrosis of the tibia. Dr. Hall had early detected the difficulty, and had made a slight incision upon its middle to the bone. As the disease had progressed a fortnight the inflammation was intense, with appearances of suppuration in three points—at the incision, just below the insertion of the ligamentum patellæ, and upon the malleolus internus. I enlarged the wound to five inches, and drilled three small holes into the bone, after Professor Smith's method. Large quantities of pus flowed through the external wound, and also bubbled up with each pulsation through the drilled holes from the medullary cavity. Dr. Hall afterwards (several days) opened a passage for the pus at the upper swelling. The lower opening being in such intimate relation with the ankle joint, and, also already discharging, was left to itself. The progress of the disease in the upper part of the limb seemed to be stayed, yet there was a free discharge of pus. Still the constant pain and irritation wore upon the health of the lad, four bed-sores formed on the sacrum and hip, one being several inches in circumference. Moreover, the opening near the ankle proved to penetrate into the joint, from which there was a free discharge. Delay no longer being possible, it was resolved to amputate above the knee. For the purpose of testing the effect of ether it was freely administered several days before the operation, at a dressing. Nearly two ounces were used, both by an inhaler and by the sponge alone, but without much effect. He could not be narcotized. It must be borne in mind that the patient was excessively fearful of any movement of the limb, and would shriek out if the hand was laid upon it, and cry for a long time previous if he anticipated any movement.

January 1, 1848, with the assistance of Drs. E. Hall and G. B. Hawley and Wells and Read, dentists, the operation was performed, and with most perfect success. The gas was given in the manner recommended by Mr. Wells, having been thoroughly washed, which greatly increases its power. In half a minute the lad, though in a most unpleasant state of mind as respects tranquility, being greatly ter-

* Notes of Dr. P. W. Ellsworth, of Hartford.

rified at the number of persons around, was in the state desired, ten or a dozen inspirations being amply sufficient.

The limb was now seized by Dr. Hall without any appearance of consciousness on the part of the patient, and the limb was instantly removed by the double flap operation, about three inches above the knee. Upon the lad arousing from the state of stupor or excitement, as you please to call it, he inquired whether the leg was off. When answered, yes, he said he knew when the bone was sawed. I asked him if he felt any pain during the cutting; he said he did not. After securing the arteries several stitches were taken. Of this he complained bitterly, not being in the state of sleep, showing how keenly susceptible he was of suffering. The popliteal nerve projected a little upon the lower flap, and being exposed it might be pressed upon between the flap and bone. I proposed cutting it shorter. The gas was again given, when the nerve was removed and the last stitch taken without any movement or expression of pain. Up to the present time the lad has been mending. Not the slightest bad symptom followed as the effect of the gas, and every hope is felt of a speedy recovery under the care of his able attendant, Dr. E. Hall. I am thus particular in recounting the effects of the gas, similar in so many respects to that of ether, because, although proved useful in smaller cases, it is the first capital operation under its effects, and because it proved itself on this occasion far superior to the latter. Those in this city who have made use of both agents upon their own persons decidedly prefer the gas. I hope others may now be induced to try the original agent discovered, and give it the test it seems perfectly ready to meet, but let them first be sure that the gas is good and that it is thoroughly washed by shaking water in it previously to use.

The medical society passed resolutions corroborating the claim of Dr. Wells, and appointed a committee which was helpful in securing from the legislature an appropriation for erecting to him the statue which now stands in Bushnell Park.

CONNECTICUT HOMŒOPATHIC MEDICAL SOCIETY.

Samuel Christian Frederic Hahnemann was born at Meissen, Saxony, April 10, 1755. He graduated as doctor of medicine at Erlangen, in 1779. He early engaged in the studies of chemistry and toxicology. While translating into his native language Cullen's *Materia Medica*, a book of standard value, he was led to experiment upon himself and others to ascertain the principle of the action of Peruvian bark. He sought to confirm, if possible, a theory of his as to drug action, so as to establish a scientific basis for therapeutics. In this way he came to develop and expand a system which he called Homœopathy. The maxim by which he expressed it was, *similia similibus curantur*—similars are cured by similars.

He attracted attention both by his hospital practice and his persistent publications, and aroused the opposition both of physicians and apothecaries. His *Organon of Homœopathic Medicine*, the declaration of his doctrine, was published in 1810. He gained adherents in Germany and in other countries of Europe, and, of course, among some of the profession in the New World.

The earliest practitioner of homœopathy in the United States was Dr. Hans B. Cram, of Copenhagen, an American by birth, though, by parentage and education, a Dane, who, after many years' absence, returned in 1825, and established himself in New York. In 1844 was formed a national association of physicians under the name of the American Institute of Homœopathy, with about forty members.

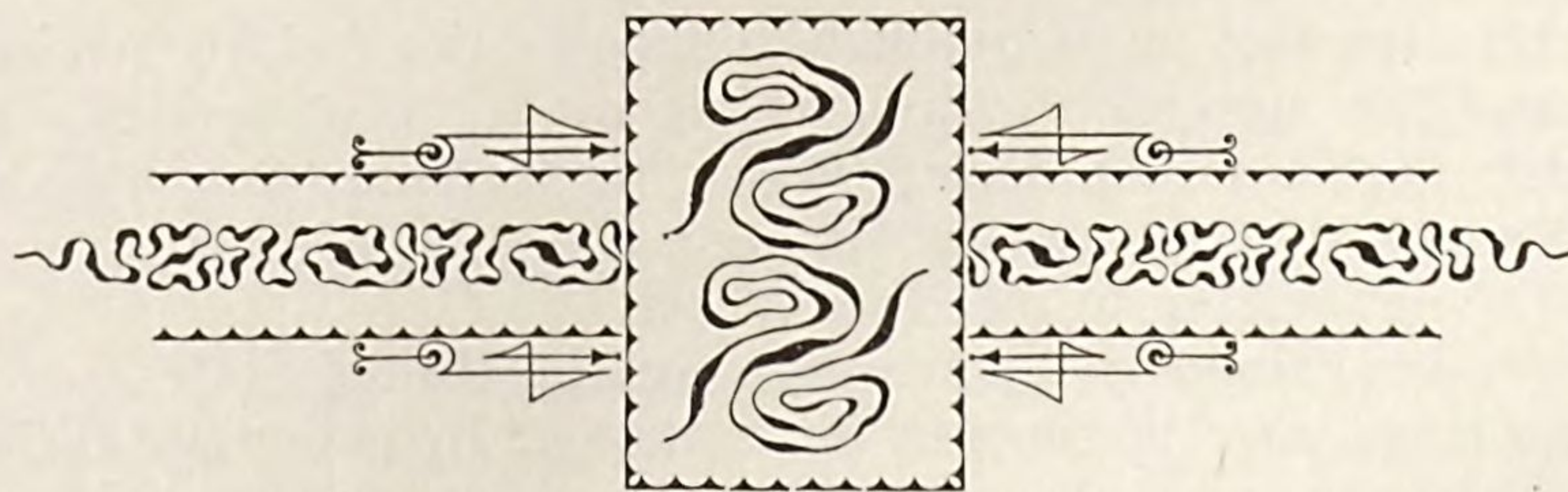
Connecticut was the fourth state of the Union into which the new system made its way. The first physician within the state to accept it was Dr. George Taylor, of

New Milford, and the particulars of his acquiring it are as follows : Dr. Frederick Vanderburg, of New York, while on a visit to that town, attended Dr. Taylor's wife in an extreme illness. History says, that she had been almost abandoned by her former attendants, and that, therefore, Dr. Taylor declared himself in favor of the new doctrine.

The first Homœopathic Medical Society in Connecticut was formed at Hartford, in 1851, by physicians from various parts of the state. They organized what was at that time called the Connecticut Institute of Homœopathy. Its promoters were Jeremiah T. Denison, of Fairfield ; Charles H. Skiff and Elial T. Foote, of New Haven ; William M. Rodman, of Waterbury ; George S. Givens, C. A. Taft and John Schué, of Hartford ; and William E. Ball, of Middletown. In 1852 the name of the society was changed to the Connecticut Homœopathic Society, which it now retains. A charter was obtained from the legislature in 1864, incorporating the society under its present name. Its annual meetings are held on the third Tuesday in May.

"While homœopathy was making its way among the people at large, steadily gaining patronage and exerting a wider influence, it met with a hostile reception from the profession here as in all other places. A great majority of practitioners refused to recognize professionally the followers of the new system. A few who did were disciplined therefor. In 1865 Dr. Charles W. Ensign, of Tariffville, graduate of the College of Physicians and Surgeons, was expelled from the Connecticut Medical Society. In 1857 Dr. William H. Sage, of Unionville, was expelled from its membership by the same society for consulting with a homœopathic physician, and in 1859 Dr. J. S. Curtis, of Hartford, received similar treatment."

Dr. Gardner S. Brown was the first president of the Homœopathic Society. The first graduate of a homœopathic medical college to settle in this state was Dr. Henry Isham, of New Britain, whose diploma bore date 1851. Previous to that they were all graduates of the University of New York, College of Physicians and Surgeons, and Bellevue, New York, and of the Berkshire Medical College, at Pittsfield, Mass. The first Homœopathic College in the country was established in Philadelphia, the second in New York, the third in Boston. There are now in the United States eighteen such institutions. The State Society numbers about one hundred members, although there are many more practising homœopathy who have not yet joined the organization. Some of them have filled the positions of surgeon-general of the state, member of the state Board of Health, and health officers of various towns.



CHAPTER LXII.

THE COMMON SCHOOLS OF CONNECTICUT.*

BY SAMUEL HART, D.D.

ALMOST immediately after the settlement of the three river towns in 1635 and the foundation of New Haven in 1638, the inhabitants began to make provision for the establishment of schools. The earliest records now extant which relate to this matter in the two most important towns—the date in Hartford is 1643, and in New Haven 1640—show that free schools were already in existence there, and there is no doubt that other towns were making like provision. The first code of laws of the Connecticut colony was adopted in 1650; it provided “That the Selectmen of every Towne, in the several precincts and quarters where they dwell, shall have a vigilant eye over their brethren and neighbours, to see first, that none of them shall suffer so much Barbarisme in any of their families as not to endeavor to teach by themselves or others their children and apprentices so much Learning as may enable them perfectly to read the English tongue, and knowledge of the Capitall Lawes”; and it further ordered “That every Towneshipp within this Jurisdiction, after the Lord hath increased them to the number of fifty householders, shall then forthwith appoint one within their Towne to teach all such children as shall resort to him, to write and read, whose wages shall be paid either by the parents or masters of such children, or by the Inhabitants in generall by way of supplye, as the major parte of those who order the prudentials of the Towne shall appointe; provided that those who send their children be not oppressed by more than they can have them taught for in other Townes”; and “That when any Towne shall increase to the number of one hundred families or householders, they shall sett up a Grammer Schoole, the masters thereof being able to instruct youths so far as they may be fitted for the University.” The first code of New Haven colony, completed in 1655, required that all children and apprentices should, “through God’s blessing, attain at least so much as to be able duly to read the Scriptures and other good and profitable printed Books in the English tongue, being their native language”; but the parents or masters might do this “either by their own ability and labour, or by improving such Schoolmaster,

*The History of Common Schools in Connecticut from the beginning to the year 1838 was written and published by Henry Barnard, L.L.D., while acting as superintendent of schools, and republished in his “American Journal of Education,” Volumes IV. and V. An article on “Public Education in Connecticut,” based in considerable part upon Dr. Barnard’s history, but embodying the results of much careful study, was included in the report of the Secretary of the State Board of Education for 1876. From these publications, and from the later reports of the Board, the materials for this article have been in large part taken.

or other helps and means, as the Plantation doth afford, or the family may conveniently provide." In 1655 the colony of New Haven was merged in that of Connecticut, and the laws of the River colony were extended over New Haven and the towns which had been confederated with it.

The second code of Connecticut, that of 1672, instead of requiring that there should be a grammar school in every town of one hundred families (a requirement which probably had not been enforced), ordered that in each county-town there should be set up and kept a grammar school for the use of the county. At this time there were four counties in the colony, bearing the names of their county-towns: Hartford, New Haven, New London, and Fairfield. In 1677 the length of a school year was defined to be at least nine months; in the following year it was provided that every town of thirty families should "mayntaine a schoole"; while in 1690 the required time was reduced to six months in a year.

It is quite certain that these laws, good as they were in their intention, were not always obeyed; and probably there were some cases in which it would have been impossible to enforce them. In the year last mentioned a law was passed, making it the duty of the grand jurors of the several towns to "sattisfy themselves wither all children under age and servants can read well the English tongue, or be in a good procedure to learn the same," and to report the names of delinquent parents or masters to the county court; the preamble to the law declaring that, "notwithstanding the former orders made for the eudication of children and servants, there are many persons unable to read the English tongue, and thereby incapable to read the holy word of God or the good laws of the colony." As to the grammar schools, New Haven jurisdiction had actually opened one in 1660; but it was closed in 1662 on account of the political "distractions of the times." But the generous provisions of the will of Governor Edward Hopkins, who died in 1658 (though the estate was not distributed till 1664, or a final settlement made till 1712), led to the establishment of the Hopkins Grammar Schools in Hartford and New Haven. The former was for a century an ordinary free school for all the children of the town, and it was not really made a grammar school till 1798; but in New Haven the school has, ever since its foundation in 1664, been conducted in accordance with the wishes of its founder. The legacy of Robert Bartlett, of New London, in 1673, enabled that town to establish a public Latin school about 1700. It does not appear that Fairfield complied with the duty laid upon it as a county-town till about the same time; and its grammar school, whatever it was, having no endowment, has left no history. For the assistance of these four schools the General Assembly made grants of land and of money. In 1690 an order was made, with evident reference to the two existing Hopkins schools, that there should be "two free schooles kept and mayntayned in this Colony, for the teaching of all such children as can com there, after they can first read the psalter, to teach such reading, writeing, arithmetick, the Lattin and Greek tongues, the one at Hartford, the other at New Haven."

The "code of regulations" of the New Haven Grammar School, made in 1684, shows where it began the instruction of youth. It provided that "noe boyes be admitted into the said schoole for the learning of English Books, but such as have been before taught to spell their letters well and begin to Read, thereby to perfect their right Spelling and Reading, or to learne to write and Cypher for numeracion and ad-dicion, and noe further; and all others either too young and not instructed in letters and spelling and all Girles be excluded as Improper and inconsistent with such a Grammar School as the law injoines and is the Designe of this Settlement." It may be added that, once admitted, the boys were expected to study diligently, for there is

no mention of holidays or vacations, and it is directed "that the Master and Schollars duly attend the schoole hours, viz., from 6 in the morning to 11 a Clock in the fore-noone, and from 1 a Clock in the afternoone to 5 a Clock in the afternoone in Summer and 4 in Winter."

It will be seen from what has been said, that even had the intention of the laws been carried out, the youth of the country towns would have had but a limited education. Still, a constant effort was made to enforce what could be enforced, and to improve upon it as far as was possible; a good number of Connecticut youth were sent to the college at Cambridge for a higher education than this colony could afford, and offerings of produce were received and transmitted by public authority for the assistance of students there. The very fact of the establishment of the collegiate school at Saybrook at the beginning of the new century testifies to the appreciation on the part of Connecticut of the value of as good an education as could be offered, for all who could enjoy it. The whole population of the colony in 1700, it should be remembered, numbered little more than 15,000.

The year which saw the establishment of the institution destined to become famous as Yale College and University, was also marked by a revision of the laws and the introduction of important changes in the system of public schools. It was now required that every town having at least seventy householders should provide "constantly" (and this was presently defined to mean for eleven months in each year) "a sufficient School Master to teach Children and Youth to read and write," while every smaller town should have a like "sufficient School Master" for half of the year. Another change was with regard to the maintenance of the schools. Heretofore the towns had paid their schoolmasters from the funds which they raised by taxation, unless indeed any town should devise some other means of payment. Now the school-tax was made uniform throughout the colony, and fixed at the rate of forty shillings on every thousand pounds (or, as we should reckon it, two mills on a dollar); and if the amount thus raised did not suffice, "and there is not any estate given by any charitable persons, or not sufficient together with the levie," then half of the deficiency was to be made up by the town, and half by the parents or masters of children that should go to the school, unless any town should make other arrangements. If any town did not provide a teacher, the constables were to collect the school tax of the town, and pay it into the county treasury. When school parishes or societies and school districts were established, the principle of this law, which remained in force for nearly one hundred and twenty years, was extended to them, so that each division of a town received for school purposes that portion of the two-mill tax which was raised within its limits. During a time of great political and financial depression, beginning in 1754, the rate of this tax was for a time diminished; but in 1767 it was restored to the former ratio.

Another change, which was made in 1712, substituted the parish for the town as the school unit. The parishes had grown up naturally under the Standing Order or Congregational establishment of the early days, when the inhabitants of remote parts of towns became able to support a minister of their own, and obtained permission from the General Assembly to organize as separate ecclesiastical societies or parishes, with definite metes and bounds. Occasionally a theological controversy and separation was terminated, as in Hartford and Guilford, by allowing two societies to exist with the same territorial limits; but the parishes which were taken in 1712 for school societies had each its own limits: often, where there had been no reason for a separate ecclesiastical organization, the parish was coterminous with the town; sometimes a town was divided into parishes; and sometimes a parish was made up of

parts of two or more towns. At first the school law treated these parishes as districts of the towns; but after a while all school affairs were administered by them, and not by the towns. The extent of the change thus introduced may be seen when it is stated that, at the time of the breaking-out of the Revolutionary War, there were in the seventy-three towns of Connecticut no fewer than one hundred and ninety parishes "in the capacity of school societies," as the law of 1795 first designated them. These latter had the entire charge of school matters from 1798 to 1856.

Another innovation, introduced in Windsor as early as 1723, and later made lawful for any town, was the division of towns and societies into districts. Before 1800 these came to have certain corporate powers and could lay taxes for building or repairing school-houses, and in 1836, when they had become greatly multiplied in number, they were made bodies corporate. Of their later history notice will be made further on.

CHAPTER LXIII.

THE COMMON SCHOOLS OF CONNECTICUT—Continued.

WE turn now to consider the school funds, local or general, as distinguished from the taxes laid by the towns for the support of schools. A few private benefactions, designated for schools of a higher grade or grammar schools, have been already noted. For a long time there were few funds, the interest of which could be applied to the common schools, except those which came from what was known in Connecticut as the Western Lands. These were not in the remote west, but in the northwest corner of the colony itself, included within its charter boundaries, but not before 1687 laid out as towns or granted to individual proprietors. In that year, on account of apprehensions as to the claims which it was feared would be made by Sir Edmund Andros, in his capacity as governor of New England, including Connecticut, a special session of the General Court was held. At this session grants were made of all the land of which the title was still held by the colony, in order that Governor Andros might not be able to claim any part of it for the Crown. The largest grant, including more than half of the present Litchfield County, was made to the towns of Hartford and Windsor, nominally that they might "make a plantation or villages thereon." The immediate purpose of the grants was accomplished; but at the end of Sir Edmund Andros's administration, when the government of the colony was resumed under the old charter, a violent controversy arose as to the ownership of these western lands. It was asserted, on the one hand, that it had been distinctly understood that the towns of Hartford and Windsor should but hold the title to these lands until the "usurpation," as it was termed, should come to an end, and that, as there had been no consideration for the grant, there could be no just claim advanced to ownership as against the colony. On the other hand, the towns argued that by the explicit act of the General Assembly they had acquired a title to the lands in question; and they proceeded to lay them out and to offer them for sale. Against this action, the General Assembly forbade all surveyors to bound or lay out any of the land without its special order. Finally, in 1726, the General Assembly proposed a compromise, which was accepted by the towns. Leaving out Litchfield, where a settlement had been already made, and some smaller tracts, the debatable land was divided into two

equal parts, the eastern half (where the names of New Hartford, Hartland, Harwinton, and Winchester still testify to this part of the history) being assigned to the towns, and the western half being retained as the property of the colony. This western half was divided into seven towns; and in five of these (the other two, as it would appear, having special treatment), after three hundred acres had been reserved for Yale College, the land was divided into fifty-three rights: one for the first minister that should be settled there, one for the support of the ministry of the town, one for the support of the local school, and fifty to be sold for the endowment of the schools in the fifty towns of the colony, the proceeds to be divided among these fifty towns according to their respective grand lists of taxable property and to be held by the towns as permanent funds. If a town had more than one parish, the fund was to be divided among the parishes. Owing to the loss of old records, it cannot now be ascertained how much was received from the sale of this land. It was accomplished about 1740; and the money distributed under the law, together with certain excise money, became the funds, part of which at least is now held or accounted for by towns, either as always theirs or as received back from the school societies or parishes.

When, in 1889, a careful inquiry was made by the State Board of Education into the origin and condition of local school funds, only twenty towns reported funds which were known or believed or which may be presumed to have been derived from the sale of lands in Litchfield county or in the "west." It is gratifying to record, however, that one hundred and nineteen of the one hundred and sixty-eight towns in the state had at that time local school funds amounting in the aggregate to over \$282,000; that about \$175,000 of this sum was given before 1800; that they appear to have been wisely managed as separate funds, even where they are represented by town notes; and that considerably more than half of the income is applied to secondary education. A study of the tables, as given in the report for 1890, is very interesting. In many cases the funds have come from legacies, the towns of Saybrook and Old Saybrook still enjoying the benefits of a sum left by will in 1689, the gift being next in age, as it would appear, to the gifts of Governor Hopkins to New Haven and Hartford, and that of Robert Bartlett to New London; while many other towns profit by the income of like pious gifts made at a later day. West Hartford has a fund of \$500, supposed to be the proceeds of the sale of old common lands; Farmington has nearly \$9,500 at interest, which came from the sale of surplus highway lands. In this latter case the original proprietors left wide strips of land for highways where highways were never needed. In 1723 the town began to sell this unused public land, and in 1784 it was voted that the money arising from these sales should be invested and the interest used for the support of the schools. Of some special gifts it may be possible to speak later.

The school fund of the state of Connecticut, created by act of the General Assembly in 1795, has a remarkable history. Its source was the sale of land in the state of Ohio, known as the Western Reserve, which was owned by Connecticut under the provisions of the charter granted by King Charles II. in 1662. By that charter there was conveyed to the "Governour and Company of the English Collony of Connecticut in New England in America," all the part of the country "bounded on the East by Norrogancett River, commonly called Norrogancett Bay, where the said river falleth into the Sea, and on the North by the line of the Massachusetts Plantation, and on the South by the Sea, and in longitude as the lyne of the Massachusetts Colony, running from East to West, that is to say from the said Norrogancett Bay on the East to the South Sea on the West part." The territory thus defined was therefore a strip of land, lying between 41° and $42^{\circ} 2'$ north latitude, and extending

from the Rhode Island line to the Pacific Ocean. Connecticut and Rhode Island after a while came to an agreement that Norrogancett Bay meant Pawcatuch River, and the *terminus a quo* was thus defined. The parts of New York and New Jersey included in the strip of land had already been covered by other grants, and Connecticut could lay no claim to them. But to the west of the Delaware River all the land on the continent between the lines of latitude already noted were included by the royal charter within the bounds of Connecticut; and this inclusion, it should be remembered, carried the claim to ownership of the land as well as to jurisdiction. The charter of Pennsylvania, granted in 1681, covered a part of the territory which nineteen years before had been given to Connecticut; and a controversy ensued as soon as the disputed territory was found to be of value for settlers. Connecticut gave titles to the first settlers on the Susquehanna, divided the land into towns, established schools and appointed officers there; and the inhabitants were from 1774 to 1782 represented in the Connecticut General Assembly. Pennsylvania also asserted her claim, and disputes arose which actually assumed the form of a war. Finally, in 1782, a court of commissioners appointed by Congress decided the controversy in favor of the later charter, and Connecticut was obliged to abandon its claim to any land within the boundaries of the State of Pennsylvania.

But her claim to the land within the specified lines of latitude west of Pennsylvania was not disputed; and in November, 1783, Governor Trumbull issued a proclamation, at the request of the General Assembly, warning all persons against settling upon it without the consent of Connecticut. Less than three years later, the General Assembly, recognizing the impossibility of holding the whole of the long strip of land to which it had a nominal title, and yielding to the suggestions of Congress, authorized the conveyance to the United States of all its territory west of a line drawn parallel to the western boundary of Pennsylvania and one hundred and twenty miles distant from it. The cession was at once accepted by Congress, and it left Connecticut the owner and ruler of about three million acres of land, which came to be known as the Western Reserve, or New Connecticut, the northern part of the present state of Ohio. In the year 1800 Congress relinquished all claim on the part of the United States to the soil of the Western Reserve, and Connecticut ceded to the United States all jurisdictional claim over the territory.

In 1792 the ownership of the state was limited by the grant of half a million acres at the western end of the Reserve, as a compensation to the inhabitants of towns on the shore of Long Island Sound for the losses which they had suffered during the Revolution. This tract was known as the "Fire Lands." The territory which remained was seen to be of great prospective value; and it must be confessed that other motives than those of pure patriotism, or love of education, weighed with the men who formed what would now be called a syndicate for its purchase. Connecticut had already in a way put the land into open market, but none of it had been sold. Presently, however, Connecticut capitalists were beginning to agitate for the purchase of the Western Reserve, seeing in it the opportunity of a successful investment, and stimulated by the enormous profits that had come from the appreciation of government stocks. To make sure of the support of an influential part of the community for their proposition to buy these lands from the state, they proposed that the proceeds of the sale should be devoted to public or *quasi* public uses. The first bid was for the influence of the "Standing Order of Christians," the Congregationalists (often called Presbyterians), who had been the establishment, practically from the first, and formally from the date of the Saybrook Platform in 1708. A bill was introduced in the General Assembly in 1791, appropriating the avails of the sale of

the Reserve lands among the established ecclesiastical societies, that they might be relieved from taxation for the support of their ministers. The bill was continued till the next session, and was never enacted. Two years later, a committee having been appointed to sell the lands and give deeds to the purchasers, a bill was introduced providing that the interest of the funds to be created by the sale of the Reserve should be "appropriated to the use and benefit of the several ecclesiastical societies, churches, or congregations of all denominations in this state, to be by them applied to the support of their respective ministers or preachers of the gospel and schools of education, under such rules and regulations as shall be adopted by this or some future session of the General Assembly." This bill, so worded as to gain the favor of all religious bodies, passed the lower house by a majority of thirteen, and the upper house by a nearly unanimous vote. It led to very warm discussion throughout the state, in the pulpit and in the press, among politicians and all citizens. At the next session, six months later, the lower house passed a bill for its repeal by a nearly two-thirds vote, while the upper house, more susceptible to the influence of the capitalists, defeated it; but both houses passed a resolution suspending the sale of the lands. In October the upper house passed a new proposition, which it was thought would appeal to all citizens and avoid ecclesiastical and anti-ecclesiastical objections, to the effect that the money to be received from the Reserve lands should be divided among the school societies or parishes according to their lists of polls and taxable estate, and that the interest should be expended either for the maintenance of schools or for the support of the ministry, as the voters of each society should annually prescribe. The lower house would not pass the bill, but continued it to the next session. The controversy then broke out anew. The debate in the General Assembly on the former bill had been reported at length; published in nearly all the newspapers of the state; and now preachers and journalists, and in fact everybody, pressed the arguments on one side or the other. President Dwight's Thanksgiving-day sermon on the subject was published, by continuation, in three numbers of the *Connecticut Courant*. Town meetings took up the matter for formal discussion and vote; the town of Cheshire, for instance, disapproved "of the contemplated appropriation of the monies to be raised by the sale of our western lands," giving as one reason that it believed "the same appropriation to be an introductory step towards establishing a certain and permanent civil provision for a certain and permanent sacerdotal order; a provision which, in other ages and nations, has gone forward and proclaimed that the downfall of liberty and true religion was hastening after, and of course a provision against which the experience of ages admonished us to guard with a jealous eye." The town added the quite unnecessary vote, "That we esteem it the indispensable duty of the inhabitants of this state, and especially of the several towns in their corporate capacities, to express their sentiments upon the subject of the preceding votes." Hartford, Wethersfield, Killingworth, and other towns adopted resolutions in favor of the proposed appropriation. The whole subject was certainly well ventilated.

At last, at the May session of the General Assembly in 1795, a new bill was introduced and passed. It provided that the principal sum to be received from the sale of the lands belonging to the state, lying west of Pennsylvania, should be and remain a perpetual fund, the interest of which should be appropriated to the support of the schools in the several school societies, to be paid to said societies according to the list of polls and rateable estate. If, however, any society at a legal meeting, warned for that purpose only, two-thirds of the legal voters present concurring, should "apply to the General Assembly requesting liberty to improve their proportion of said interest, or any part

thereof, for the support of the Christian ministry or the public worship of God," the General Assembly was given "full power to grant such request during their pleasure." In this latter case, the money was to be distributed among the religious societies, churches or congregations of all denominations of Christians within the society, according to the taxable lists of their respective members. This permission, as might have been expected, was in no case asked, and the whole fund was kept for the use of the schools. The bill was passed by a vote of 94 to 52 in the lower house, and it probably met with no serious opposition in the upper house. A committee was at once appointed to negotiate for the lands; all the contracts, if there should be more than one, were to be consummated together, the purchasers to hold their respective parts in common and not in severalty; and the committee was instructed to make no sale for less than \$1,000,000, present value in specie. At the October session the committee reported that they had effected a sale of the Western Reserve for \$1,200,000, payable in five years, with interest after two years. The land was taken by thirty-five people, as in thirty-six shares of quite unequal value. They were at once organized into the "Connecticut Land Company," the history of which lies beyond the limit of this paper.

Thus was founded the Connecticut School Fund, the first dividend of which to the school societies was made in March, 1799. It was managed until 1810 by a committee appointed by the General Assembly, and paid dividends amounting in all to nearly \$457,000. By this time the thirty-six original bonds on personal security had become nearly five hundred bonds, mostly secured by mortgages on real estate. Many of the securities were of doubtful value, and much interest was overdue. The accounts were in woeful confusion, and it seemed quite probable that the fund was seriously impaired. It was decided to put the whole matter into the charge of one man, to be called the commissioner of the school fund; and the Hon. James Hillhouse left the seat in the Senate of the United States which he had held for sixteen years to accept the new office. The admirable manner in which he discharged it is an honorable page in the history of Connecticut. "Without a single litigated suit," we are told, "or a dollar paid for counsel, he reduced the disordered management to an efficient system, disentangled its affairs from loose and embarrassed connections with personal securities and indebted estates, rendered it productive of a large, regular and increasing dividend, and converted its doubtful claims into well-secured and solid capital." At the end of fifteen years, in which the annual dividends to the schools had averaged \$52,000, he left the fund with a principal of nearly \$1,720,000. To this principal sum he himself contributed over \$10,000, which had been personal gifts to himself from three individuals in recognition of the services rendered to them while settling the accounts of the fund—a sum which, with its interest to the time of his retirement, amounted to more than the whole salary that he received from the state.

In 1825 Mr. Hillhouse was succeeded by the Hon. Seth P. Beers, who held the office of commissioner for almost a quarter of a century. He left it with a principal of nearly \$2,050,000, and an annual income of about \$133,400, the average during his term having been nearly \$98,000. Since 1820 the dividends of the school societies had been apportioned, not according to their grand lists, but according to the number of children between the ages of four and sixteen—a principle of division which has been retained ever since. The dividend in 1826 was eighty-five cents for each child; it reached its maximum in 1849 and 1850, when it became \$1.50; then, with an increased population, and later with diminished rates of interest as well, it fell off. For several years after 1859 it was \$1.00, with a recovery in 1875 to \$1.10. In the last-

mentioned year the income was about \$148,000; in 1885 it was nearly \$121,000; and in 1895 it was about \$124,000. In 1894, after the dividend had remained for some time at seventy-five cents for each enumerated child, it fell to a lower amount; then, in accordance with a provision of a law passed in the preceding year, a small sum was drawn from the treasury and added to the income of the fund, that the dividend might remain at seventy-five cents. The last reported principal of the fund is a little over \$2,000,000, of which about five-eighths is loaned on bond and mortgage in Connecticut. It may be added here, though it is by way of anticipation, that for some years the state has paid to the schools from its treasury, in addition to the grant for the school fund, a dollar and a half towards the education of each enrolled child.

The position of the school fund was made especially secure by a section of the Constitution of the state adopted in 1818. It is in these words: "The fund, called the School Fund, shall remain a perpetual fund, the interest of which shall be inviolably appropriated to the support and encouragement of the public or common schools throughout the state, and for the equal benefit of all the people thereof. The value and amount of said fund shall, as soon as practicable, be ascertained in such manner as the General Assembly may prescribe, published, and recorded in the Comptroller's office; and no law shall ever be made authorizing said fund to be diverted to any other use than the encouragement and support of public or common schools, among the several school societies, as justice and equity shall require." While this fund has not been in every way an advantage to the educational interests of Connecticut—for, as will be noted, it relieved the citizens and the towns for a long time from any financial concern in them—it has been, and may long be, of great value for the maintenance of the common schools of the state and as bearing testimony to their importance.

Another fund, or series of funds, intended for the benefit of the schools in the state, is known as the Town Deposit Fund. Its source is the sum of money received by the state from the United States in 1837, when the surplus money in the federal treasury, amounting to about \$35,000,000, was deposited with the several states, in proportion to their representation in Congress, for safe-keeping and repayment if demanded. The General Assembly of Connecticut, having voted to accept the deposit of the amount assigned to the state, which was \$763,662, passed an act in 1836, providing that the money should be deposited with the several towns, if they should vote to receive it, in proportion to their population, the several deposits to be held in trust for the state, and the interest to be applied annually, "at least one-half thereof for the promotion of education in the common schools of each town, in such manner and proportions as the town shall direct, and the remainder for the purpose of defraying the ordinary expenses of such town"; and it was also provided that the towns should make good any deficiency which should occur through mismanagement or any other cause. In 1855 an act provided that the whole income of the town deposit funds should be devoted to the common schools. The report of the secretary of the Board of Education published in 1888 contains the result of a thorough examination into the condition of these funds, showing how each town then accounted for its share. The nominal total was \$753,326, only some \$10,000 less than the amount deposited fifty years before; but of this sum more than two-thirds (say \$528,000) was invested in town securities, including "a large sum upon which towns do not make any pretense of paying interest, other considerable sums which the town officers never heard of, and other sums invested in town farms, public buildings, etc." "Of the notes secured by mortgage (\$145,000)," continues the report, "a large part, not accurately ascertained, are worthless. In fine, five-

sevenths of this fund devoted by the state and received in trust by the towns, if not dead, is in a profound and very unhealthy sleep. The interest is not a substantial sum of money which can be devoted to schools, but a fiction, legal or illegal, which appears on the books or not, as the town desires." In 1896 the principal was reported as unchanged, and the income was reckoned as \$33,288, a very large part of which was probably but a transfer from one account to another on the books of the several towns.

It seemed most convenient to bring together some account of the several school funds. We return now to consider certain points in the history of the schools themselves.

CHAPTER LXIV.

THE COMMON SCHOOLS OF CONNECTICUT—Continued.

THERE appears to have been very little change in the character of the education in Connecticut during the eighteenth century. The studies pursued were reading, writing, and the simple rudiments of arithmetic. "The foundations were firmly laid, but the superstructure was not carried to a great height." The revised statutes of 1750 contained four new provisions as to schools. The civil authority and selectmen were constituted inspectors or visitors, and directed to visit and inspect all schools at least once a quarter, "and inquire particularly into the qualifications of the masters, the proficiency of the pupils, and give such directions as they shall judge needful to render such schools most serviceable for the increase of knowledge, religion, and good manners." In 1766 a law was passed authorizing the towns to divide themselves into proper and necessary districts for keeping their schools, which districts should have their proportion of the public money, according to their several grant lists. "By the practical operation of this act," says Dr. Barnard, "the school system of Connecticut, instead of embracing schools of different grades, was gradually narrowed down to a single district school, taught by one teacher in the summer and a different teacher in the winter, for children of all ages and in every variety of study residing in their several territorial limits." By an act of 1798 certain important changes were made. In the first place, the town entirely gave place to the school society, the representative of the ancient parish, and each society was required to appoint not more than nine persons "of competent skill and letters," to be visitors, with power to examine, to approve, and to displace schoolmasters, "to appoint public exercises for the youth, and to give honorary marks of distinction to such as are found to excel." In the second place, the old provision for county grammar schools was withdrawn, and any society was authorized to institute a school of higher order for the common benefit of all the inhabitants, "the object of which shall be to perfect the youth admitted thereto in reading and penmanship, to instruct them in the rudiments of English grammar, in composition, in arithmetic and geography, or, on particular desire, in the Latin and Greek languages, also in the first principles of religion and morality, and in general to form them for usefulness and happiness in the various relations of social life." Very few society High Schools were ever instituted; that in Hartford was established under the provisions of this law, but not until 1847. It may be that the law was suggested, and at the same time rendered practically nugatory, by the establish-

ment of academies, which for a long time held a prominent and influential position. The first appear to have been the Staples School, now in the town of Easton, founded in 1781, and the Plainfield Academy, founded in 1783; the Episcopal Academy of Connecticut, at Cheshire, was established in 1794 and chartered in 1796. Many acts of incorporation were passed at different dates, until in 1838 general provision was made for the incorporation of academies.

The only act passed in restriction of schools seems to be that of 1742, which was to continue in force but four years, and the occasion for which was, almost certainly, the excitement attending the Great Awakening, the preaching of Whitefield, and the New Light movement. It was directed as well against an unlearned ministry as against unlicensed teaching, and provided for severe penalties against unlawful schools, their tutors and instructors, and also their scholars and those who should harbor them, who were to be dealt with "according to the laws of this colony respecting transient persons or inmates residing in any town without the approbation of the selectmen." The law was not continued or re-enacted.

As has already been suggested, the growth of the school-society and school-district system, and the fact of the support of the common schools from the income of the school fund, did not increase the efficiency of the schools, or the interest of the intelligent part of the community in them. There were many excellent teachers, but they owed their success to their character, their self-denial, and their love for their work, rather than to their literary qualifications and to the system under which they served for a mere pittance. Those who wished a reasonably good education for their children sent them to academies or private schools; and in 1837 it was estimated that between one-seventh and one-eighth of the children of the state, belonging to well-to-do families, were instructed elsewhere than in the common schools, at an expense greater than was appropriated for the education of all, and that about one-twelfth of the children of proper age (say 6,000) were growing up in absolute ignorance. Before this, however, attention had been called to the serious condition of things. In 1825 Governor Wolcott, expressing his opinion that "the schools at present established in our cities and villages, including the select schools of the opulent, are insufficient for the proper education of all the children, and those of the poor and improvident are in the greatest danger of being neglected," suggested the introduction of the Lancasterian system and the establishment of public schools of an intermediate grade between the common school and the college. Connecticut did not fail to share in the effort which was made in various parts of the country, about this time, to improve the common schools. In 1827 a society for this purpose was formed in Hartford, perhaps the first of the kind in the country, of which the Hon. Roger M. Sherman was president; and three years later a convention of teachers and their friends of education was held in the same city, under the presidency of Dr. Noah Webster, which exerted a great influence. In 1834 a committee was appointed by the General Assembly to inquire what changes were necessary in the laws of the state to raise the character of the common schools and increase their usefulness; but their report was never acted upon by the standing committee of the next General Assembly to which it was referred. At last, in 1837, in consequence of a report, certain of the figures from which have already been given, a bill was passed by a unanimous vote in the Senate, and with but one dissenting voice in the House of Representatives, "for the better supervision of public schools." It provided for the appointment of eight persons, one from each county, who, with the governor and the commissioner of the school fund, should be the Board of Commissioners of Public Schools. From the organization of this board, of which the secretary was Henry Barnard, who here began his

extended and efficient labors in the cause of education, dates a new era in the history of schools in Connecticut, which, though by no means an era of unfailing and steadily advancing prosperity, has yet made it possible to attain great advance and to open the way for still greater prosperity. The board of commissioners was abolished after five years, and in its place, from 1845 to 1849, the commissioner of the school Fund was appointed superintendent of common schools. Then for some time the principal of the State Normal School at New Britain was made the superintendent; and finally, in 1865, the present State Board of Education was established, consisting of the governor and the lieutenant-governor and four other members, one from each congressional district, each holding office for four years. The board elects its own secretary, who is practically a state superintendent of public instruction. The secretary since 1883 has been Charles D. Hine, to whom the state owes more than it can ever repay. His reports on the schools and on matters connected with them are of the greatest value, and his personal influence on behalf of sound and wise education is and will be widely felt.

The power of school districts was greatly enlarged when in 1839 they were made bodies corporate and empowered to elect their own committees, employ teachers, and lay taxes upon the property within their limits, for school purposes. The school societies were abolished in 1856, and the towns returned to their ancient place in the school system. This change, however was to a large extent, greater in appearance than in reality; for many of the ancient towns had been so divided as to make the boundaries of towns practically, if not identically, the same as those of the societies.

From 1821, when the income of the school fund was held sufficient to make the tax for schools unnecessary, until 1854, there was practically no town or society school tax in the state. Rate or tuition bills were made out in varying ways against those whose children went to school, the town assuming the bills of those who were unable to pay them. The school tax was restored in 1854, when each town was required to lay a tax of at least three-tenths of a mill for this purpose; this was later changed so as to require the town to raise enough to ensure the proper keeping of a school for the number of weeks required by law. Rate bills were abolished in 1868. In 1871 an appropriation from the state treasury of fifty cents for each child of school age was made by law, the amount to be paid to the towns with the dividend from the school fund. In the following year this amount was increased to a dollar and fifty cents.

In his annual report as secretary of the Board of Education, presented in 1866, Daniel C. Gilman, now the honored president of the Johns Hopkins University, called special attention to the great number of school districts as a serious obstacle to the progress of education. At that time there were in the one hundred and sixty-two towns in the state no fewer than 1623 school districts, the number in the several towns varying from two to twenty-two. "These little republics," as he said, were "each independent in some respects of all others, each capable of opposing progress and thwarting by neglect, if not by literal violations, the enactments of the state." "If," he argued, "the people of the town can be brought together, or at any rate if the people of a common central village can be brought together for discussion and deliberation, there is some hope of accomplishing good results; but to go over and over again the same subject in ten to twenty plans within the same township requires more energy, more time and more pay than our board of school visitors are expected to command. If all the districts were composed chiefly of intelligent and thinking men, the evil would be lessened; but it is well known that many of them are so destitute of life that it is almost impossible to get a suitable person to manage the public

business. . . . Sometimes no one can be found competent and at leisure to assume the duties. This is especially true in some of the thinly-peopled districts of the country.' His plea, based on this statement of facts, was for the town management of schools and the consolidation of districts, not necessarily involving the abolition of school-houses. And a useful example was at hand in the case of New Haven, where a few years before all the districts within the city limits had been united into one school district, having one high school, six large graded schools, and several smaller schools. In consequence of the arguments contained in this report, the General Assembly passed an act giving to the towns the jurisdiction over school matters which had been in the hands of the several districts, providing for non-partisan boards of management, and giving power to any town to maintain as many schools as there were districts, or more or less as might be found best, making the whole a system adapted to the special wants of the community. Within a year six towns sought to organize their schools under the new law; and since that time there has been a growing tendency, which the Board of Education has done much to encourage, to consolidate the districts in the several towns, and to organize the schools as departments of one school system. This has enabled towns to grade their schools and to give equal advantages to all their residents of school age. And when to this there has been added the full or partial endowment of schools by the gifts of generous benefactors, the advantages are both more extended and more apparent. A good example is in the town of Clinton, where in consequence of a large legacy of the late Charles Morgan the town is provided with a high school of excellent grade and with good facilities for preliminary and primary work, while the town tax for schools has become merely nominal.

The number of districts in the one hundred and sixty-eight towns of the state has now been reduced to one thousand two hundred and sixty-three, twenty-three towns having consolidated their districts; and of these twenty-eight all but two (in which other provision is made) maintain high schools, or at least high-school departments of their school system. Besides these, it may be added that there are eleven towns having high schools managed by town high-school committees, and in twenty-four towns there are thirty-four district high schools. To this there might well be added, as in reality a part of the system of public education, some notice of the normal schools at New Britain—for a long time the only one in the state—Willimantic, and New Haven. But it must suffice, within the limits of this paper, to mention them, and to suggest the existence of other departments of educational work in teachers' institutes, grammar schools, night schools, kindergartens, libraries, etc.

The thorough examination of the schools in certain parts of the state which the Board of Education is undertaking, has already shown that a great deal yet remains to be done in the interests of good work in the elementary schools of Connecticut. The Board, presenting in 1896 a special report on the schools in one county, mostly agricultural and of a scattered population, used the following very serious words:

"There was a time when the people of Connecticut could contentedly compare their schools with the public schools of other countries. Since that time, however, great progress has been made elsewhere in the development of public education, while the people of Connecticut, flattered by the praise of De Toqueville and others, have been so certain of the superior quality of their schools as to relax their efforts for improvement. To-day, in the opinion of competent judges, the schools of Connecticut, although on the average as good as those of other parts of the United States, are not as good as the schools of several countries of Northern Europe. We can see no escape from the conclusion that, while there are many good schools here and there throughout the state, the average quality of the teaching in our public schools is unnecessarily bad. It is disagreeable to us to say this; but we feel constrained to express our opinion unreservedly, because

there can be no reasonable expectation of improvement until the self-satisfaction felt by our people is exchanged for a just and critical estimate of the actual condition of their schools."

To this work the board, with the aid (it would be better to say under the guidance) of its indefatigable secretary, is addressing itself. The problem has changed very greatly within the last quarter of a century; and the prosperity of generations to come depends upon the accuracy with which it is stated now, and the way we go about to solve it. This at any rate may be said, that the people of Connecticut will not begrudge the labor and expense necessary to secure for all their children that education which is necessary to fit them to bear their parts as citizens of their historic commonwealth.

A few statistics may be added, as indicating the amount of work doing and to be done. They are (except the one item of population, which is from the last decennial census) taken from the report published in 1896. Population of Connecticut, 756,258; children between four and sixteen years of age, 170,589; number of pupils enrolled in the public schools, 138,882; average daily attendance, 96,213; average number of days in school year, 183; number of teachers, 3,634; number of enumerated children in other than public schools, 21,306.

Revenue: From permanent funds (State School Fund, \$127,942; Town Deposit Fund, \$33,289; local funds, \$7,639), \$168,870; from state appropriation, \$255,883; from local taxes, \$1,850,316; from other sources, \$183,205; total, \$2,458,274. Expenditures: For salaries and other current expenses, \$1,866,064; for libraries and apparatus, \$20,403; for new buildings, \$308,058; for other charges, \$390,585; total, \$2,585,110. Amount of permanent invested funds, \$3,054,541; value of all public-school property, \$8,450,600.



CHAPTER LXV.

YALE UNIVERSITY.

BY HENRY A. BEERS.



LONG before the close of the seventeenth century, the project of a college in the colony of Connecticut had been mooted. In 1700 Connecticut had a poor and thinly scattered agricultural population of not over fifteen thousand. The only college in New England was Harvard, founded in 1636, and this had hitherto supplied the educational needs of the Connecticut colonists. But its distance, in those days of unrapid transit, was felt as a serious evil. Not until 1701, however, did the new enterprise take definite shape. In the summer of that year a number of Connecticut clergymen met in the neighborhood of New Haven to consult upon the subject. Prominent among these were the Rev. James Pierpont, of New Haven, and the Rev. Abraham Pierson, of Killingworth (now Clinton). Tradition records a subsequent meeting in September, at the house of the Rev. Samuel Russell, in Branford, to which each minister present brought a number of books—in all some forty folios—which he laid upon the table with the words, "I give these books for the founding of a college in this colony."

In October of the same year, and seemingly on the 16th day of the month, the legislature or "General Court" granted a charter "unto certain Undertakers for the founding, suitably endowing and ordering a Collegiate School within his Maj^{ties} Colony of Connecticut, wherein Youth may be instructed in the Arts and Sciences, who, through the blessing of Almighty God, may be fitted for Publick employment, both in Church and Civil State." The charter named ten Connecticut clergymen as trustees of the new collegiate school, with power to appoint their associates and successors. The trustees were not to be more than eleven nor less than seven. They were to be "ministers of the gospel inhabiting within this Colony and above the Age of forty years;" were empowered to hold real estate to the value of £500 per annum; and were to receive an annual grant from the colony of £120 "country pay"—variously computed as equal to £60 or £80 sterling.

On November 11, 1701, seven of the trustees met at Saybrook and organized the collegiate school. It was fixed nominally at Saybrook; but as the Rev. Abraham Pierson, who was chosen rector, was the parish clergyman of Killingworth, nine miles from Saybrook, and continued to reside there till his death in 1707, such students as offered were taught at Killingworth, though the annual commencements were held at Saybrook, the first of them on September 16, 1702, at the house of the Rev. Thomas Buckingham. For seventeen years the new college led a wandering and divided life. Rector Pierson's successor, the Rev. Samuel Andrew (1707-19), was pastor of the church at Milford, where he taught the seniors, while the members of the lower classes were instructed at Saybrook—forty miles away—by one and

afterwards by two tutors. The library was at Saybrook, and received in 1714-15 a valuable gift of books—between seven hundred and a thousand volumes—from England, through the exertions of Jeremiah Dummer, agent for the colony of Connecticut. Up to 1710 or 1711 the course of study for the Bachelor's degree occupied only three years. Candidates for admission to college were examined in Latin and Greek authors and in making Latin. Students were instructed in Tully and Virgil, in logic, the Greek Testament, the Assembly's Catechism (in Latin), in Ames' Theological Theses and Cases of Conscience, in the Psalms, in Hebrew, and in a MS. textbook in physics, or natural philosophy, prepared by Rector Pierson. The upper classes used to dispute syllogistically twice a week. Before the location of the college at New Haven in 1717, the number of students in attendance at any one time had not exceeded thirty.

In 1715 the legislature granted to the trustees £500 for the building of "a college-house." This brought to a head the burning question of the permanent location of the college, concerning which there was much local jealousy in the colony; New Haven, Hartford, Saybrook, Wethersfield and Middletown, all making bids for it. The Trustees finally decided in October, 1716, in favor of New Haven, whither one of the tutors at once repaired with some dozen of his scholars. The other, with an equal number of students, seceded to Wethersfield, near Hartford, and put himself under the charge of the Rev. Elisha Williams, a recent Harvard graduate, who thus became a kind of tutor extraordinary. Three or four students stayed at Saybrook, under the tuition of a former tutor, until an outbreak of the small-pox drove them to East Guilford (now Madison). The Hartford or "up-river" interest was in the minority among the trustees and memorialized the legislature, but without effect. Rival commencements were celebrated at New Haven and Wethersfield in 1717 and 1718, and only in the summer of 1719 was the school at Wethersfield finally removed to New Haven. Violent resistance was offered at Saybrook to the removal of the library of some thirteen hundred volumes. The sheriff had to be called in to take forcible possession of them. Bridges between Saybrook and New Haven were broken down and the library was a week on the road. The carts in which the books were carried were attacked, and two hundred and sixty volumes, with the records of the college, were lost or destroyed in the struggle.

Meanwhile, a house for the reception of the college had been built at New Haven, and was dedicated on Commencement Day, September 12, 1718. It stood in the southeastern corner of the present college-yard. This building was of wood, three stories high, with steep roof and dormer windows, and had, besides twenty-two sets of rooms for the scholars, a dining-hall, library and kitchen.

About the time of the removal of the college to New Haven, there were received from Governor Elihu Yale, of London, a large box of books, the portrait (by Sir Godfrey Kneller) and the arms of George I., and East India goods to the value of £562 12s. sterling. In acknowledgment of this gift, the trustees "solemnly named" the new building Yale College—a name which did not become the legal designation of the "collegiate school" until the new charter of 1745. Elihu Yale was the son of David Yale, a stepson of Governor Theophilus Eaton, one of the founders of New Haven. He was born at Boston April 5, 1649, was educated in England and made a fortune in the East Indies, where he became governor of Fort St. George, now Madras. A great-grandson of Governor Yale presented the college, in 1789, with a full-length portrait of its sponsor. From this is taken the figure on the cover of the *Yale Literary Magazine*, but the elegiac couplet just beneath it,

Dum mens grata manet, nomen laudesque Yalenses
Cantabunt soboles unanimique patres,

comes from a manuscript inscription under an engraved portrait of Governor Yale, sent to the college at an earlier period. The college is also in possession of a silver snuff-box, once belonging to its benefactor, having a tortoise-shell lid with medallion, coat-of-arms, and the motto, *Premium virtutis gloria*. Not for over a century did the college receive from any individual donor a gift equal in value to that whose memory is preserved in the name of the institution.

The college had now a local habitation and a name and was fairly launched upon its course. There were about forty students, who were taught by the rector and a single tutor. The Rev. Timothy Cutler, who had been chosen rector in 1719, apostatized to Episcopacy in 1722, and with him the acting tutor, Mr. David Brown. This resulted in their resignation or removal, and in the imposition of a religious test upon all future officers of the institution, which was not abolished until 1823. Two new tutors were at once appointed, but the rectorship remained vacant up to 1725, when it was filled by the Rev. Elisha Williams, who held office till 1739. A second tutor was added in 1728 and a third in 1743, in which year the first catalogue of the college library was published, showing a collection of some twenty-six hundred volumes. A number of grants had been received from the legislature of the colony and several gifts from private benefactors, the most noteworthy of whom was Dean, afterwards Bishop, George Berkeley, who came to Rhode Island in 1729 in furtherance of his romantic project for founding a college in Bermuda. Berkeley became interested in Yale through the Rev. Samuel Johnson, of Stratford, a graduate of the college in the class of 1814 and a former tutor, who had gone over to the English Church at the time of Rector Cutler's secession and was the senior Episcopal missionary in the colony of Connecticut. On the dean's return to England in 1732, he sent the college library a collection of about nine hundred volumes, valued at £500, and deeded to the trustees his farm of ninety-six acres at Whitehall, near Newport, R. I., the rent to be appropriated to scholarships and prizes for excellence in Greek and Latin. The Berkeley scholarships and premiums—long known as "The Dean's Bounty"—are still annually awarded. But in consequence of the trustees having leased the land in 1763 for a term of nine hundred and ninety-nine years, the yearly rental of an estate which was then (1732) valued at £3,000, and which is now worth at least \$100,000, is only \$140.

A house for the rector had been built in 1722, paid for in part by legislative imposts on rum. In 1752 was erected South Middle College, originally known as Connecticut Hall, the first building in the "old brick row," and the oldest of the college buildings now standing. This was paid for partly by the proceeds of a lottery and partly by a grant from the colonial legislature of the money derived from the sale of a French prize ship. A college church having been organized, a chapel and library building was completed in 1763, refitted with recitation and lodging rooms in 1824, and known as "the Athenæum" until it was taken down in 1893.

In 1739 Rector Williams was succeeded by the Rev. Thomas Clap, who held office till 1766. During his long administration, there arose in the colony serious dissatisfaction with the college management. In 1740 the great revival preacher, George Whitefield, visited New England and raised, by his eloquence, a sort of religious inflammation. All manner of Enthusiasts, Separatists and "New Lights" started up to trouble the decorous orthodoxy that had hitherto reigned unbroken in Connecticut. Authority everywhere took ground against the movement, and the heads of the college criticised Whitefield and his followers in a printed document. Several students, among them David Brainerd, afterwards a celebrated missionary among the Indians, were expelled for attending Separatist meetings. This and other measures

of President Clap's administration gave great offense. Anonymous pamphlets were directed against the government of the college, its orthodoxy was questioned, complaints were made about its system of discipline and instruction, and the students were encouraged in insubordination by citizens of New Haven. Finally, in 1763, a memorial was presented to the General Assembly, praying for the appointment of a committee of visitation to inquire into and rectify the abuses in the college. The president opposed this in a counter-memorial, which Chancellor Kent praised for its legal ability, showing conclusively that no visitorial powers resided in the legislature. The controversy, which resulted favorably for the counter-petitioners, was of great value to the college, establishing thus early in its history its freedom from state interference.

In 1745 Clap had procured from the Assembly a new charter of his own drafting, whereby the "partners" or trustees of the "collegiate school" were formally incorporated under the name of "The President and Fellows of Yale College," and received the usual powers of a corporation, such as the right to hold property, to sue and be sued, to choose their own successors, etc. The eleven incorporators named in this act were all ministers, and although it was not specified that their successors should be such, it has remained true under all subsequent amendments of the charter, that vacancies in the office of the president and his ten original associates, have always been filled by Congregational ministers residing in the colony or state of Connecticut. Of the one hundred and ten tutors connected with the college during its first century, but forty-nine were laymen. By 1750 three hundred and six clergymen had been graduated, and three hundred and thirty-six laymen. The first professorship established was that of divinity, and the first occupant of the chair was the Rev. Naphtali Daggett, who was chosen to fill the position in 1755. The second professorship, in mathematics and natural philosophy, was founded in 1770, and its first incumbent was the Rev. Nehemiah Strong. An instructor in Hebrew was appointed in 1798. But these chairs were slenderly endowed and often empty. Sometimes the president performed the duties of a professor as well as his own, which regularly included the work of college pastor or chaplain, and the instruction of the senior class in mental and moral philosophy.

The curriculum of study during the eighteenth century included, in uncertain and varying proportions, Hebrew, the Greek Testament, writing and speaking Latin, logic, ethics, metaphysics, divinity, rhetoric, physics, and mathematics. The last embraced under Dr. Clap—whose tastes were prevailingly scientific—more or less of algebra, trigonometry, navigation, surveying, conics, fluxions, and the calculation of eclipses. Mention is also made of "disputing" in the two upper classes, "on Monday in the syllogistic form, on Tuesday in the forensic." For a century after the foundation of the college, no Greek was read outside of the New Testament; but from the very first, Cicero and Virgil were studied, the Psalms were recited in Hebrew, and Ames' "Medulla," and "Cases of Conscience," were used as text-books on Saturdays. Physics was taught from a manuscript prepared by Rector Pierson, for about thirty years. President Clap introduced Martin's "System of the Newtonian Philosophy," which was used up to 1787. At President Stiles' accession to office in 1777, the freshmen were instructed in Virgil, Cicero, the Greek Testament, and arithmetic; the sophomores in the Greek Testament, Horace, English grammar, logic, geography, algebra, rhetoric, geometry, and "Vincent's Catechism;" the juniors in the Greek Testament, trigonometry, Cicero, Martin's "Philosophic Grammar and Philosophy," and "Vincent;" the seniors in Greek Testament, Locke "On the Human Understanding," Wollaston's "Religion of Nature," Edwards "On the Will," "Wollebii Amesii Medulla," and President Clap's "Ethics."

Until 1767 the names of undergraduates on the college catalogues were arranged, not alphabetically, but in order of rank. Thus the leading name in the class of 1725 is Gurdon Saltonstall, the governor's son. Then follow names of sons of clergymen, lawyers, artisans and tradesmen. "Every student," says one of the old laws, "shall be called by his surname, except he be the son of a nobleman, or a knight's eldest son." As between the college classes, a strict subordination was enforced, and a somewhat laborious etiquette prevailed between faculty and students. The freshmen were almost in the condition of fags in the English public schools. They were forbidden to wear their hats in the front-door yard of the president's or professor's house, or within ten rods of the person of the president, eight rods of the professor, and five rods of a tutor; to run in college yard, or up and down stairs, or call to any one through a college window, or to play with any members of an upper class without being asked. Juniors, and in some cases sophomores, were allowed to reprehend and discipline freshmen. Scholars were required to address each other in Latin. Freshmen and "commencing" sophomores were sometimes boxed on the ear by the president in a solemn and formal manner in chapel. But discipline was chiefly maintained by a system of graded fines; a penny for absence from prayers, a half-penny for tardiness, twopence for playing cards, etc. It was charged against President Clap that in three years of his presidency over £172 had been collected from the students in fines.

In 1753 and 1768, respectively, there were founded among the undergraduates the two "open" or literary societies, the "Linonian," and "Brothers in Unity," which for over a century were famous schools of debate, in which many men afterwards distinguished as public speakers, got their early training. On the dissolution of these societies, in 1872, their libraries were taken over by the college. Until 1842 undergraduates were compelled to eat in commons. The first building known as "Yale College" contained a dining-hall and kitchen which were in use till 1782, though the rest of the structure was demolished in 1776. In 1782 a new hall and kitchen building was erected west of the brick row, which served for college commons until 1820, after which it was turned into a chemical laboratory, and was finally taken down in 1888. Commons was transferred in 1820 to a much larger building, also west of the brick row, which had a kitchen in the basement, a dining-hall on the first story, and a room for the mineral cabinet on the upper floor. This cabinet building remained standing till 1890, though the lower part of it was made over into recitation rooms in 1820, and the upper floor was used for a college reading-room after the collection of minerals was removed to the Peabody Museum in 1876. South College, the third member of the old brick row, was completed in 1794. This was used as a dormitory, and was demolished after just a century of existence, to make room for Vanderbilt Hall in 1893. It was at first called "Union Hall," to commemorate the closer union between the college and the state, which resulted in a fresh grant of money by the legislature (amounting eventually to \$40,629), as a return for which the governor, lieutenant-governor and six senior senators of the Connecticut legislature were made *ex officio* members of the corporation.

President Clap was succeeded by the Rev. Naphtali Daggett (1766-77), who was succeeded by the Rev. Ezra Stiles (1777-95). During the Revolution the college was all but broken up. In 1777, owing to the high price of provisions at New Haven, the freshmen were removed to Farmington, the juniors and sophomores to Glastonbury, and the seniors to Wethersfield, under charge of their respective tutors. The professor of mathematics was requested to go to Glastonbury (whither, it was voted, the college bell might also be transported, if the inhabitants would pay the cost of

its conveyance); and President Daggett, as professor of divinity, was to visit his scattered classes as often as he conveniently could. New Haven was occupied by the British in July, 1779, and ex-President Daggett, going out against the invaders with a company of volunteers, was so roughly handled by the enemy that his injuries are believed to have hastened his death.

With the close of the Revolutionary War, the opening of a new century and the accession to the presidency of the Rev. Timothy Dwight (1795-1817), Yale entered upon a course of development so rapid and manifold that, from a provincial school, attended by little more than a hundred pupils and conducted by less than a half dozen teachers, it has grown into a great national university, of seven separate faculties, numbering its students by thousands and its officers of instruction by hundreds, occupying some fifty buildings and holding property to the value of ten million dollars. The steps in this history of progress are matters of detail which cannot be recorded here; the successive addition of new subjects to the curriculum of studies, and of new teachers to the faculties of the university; the gradual enlargement of the facilities for education in the way of libraries, collections, apparatus, lecture-rooms, etc., and the numerous gifts and benefactions which have made this growth possible. But it may be said, in a general statement, that the development has been twofold: first, an unfolding of the old college or academic department within itself; secondly, a throwing off by the parent stem of vigorous shoots in the shape of special departments and technical schools.

President Dwight was a man of imposing personality, wielding a remarkable influence over young men and holding broad and progressive views on education. He inaugurated the policy of appointing to permanent professorships young men who had given promise as tutors. Jeremiah Day was chosen in 1801 to be professor of mathematics and natural philosophy. A professorship of chemistry and natural history was established in 1802 and filled by Benjamin Silliman, who gained national reputation as the pioneer of chemical science in America, and founded in 1818 the *American Journal of Science*. In 1805 James Luce Kingsley was appointed to another new professorship, which included, at first, Hebrew, Greek, Latin and Ecclesiastical History, subjects which were afterwards, of course, distributed among a number of chairs. Dwight also settled the future policy of the college in a very important respect. By calling to his aid, in the government of the institution, the *Senatus Academicus*, or whole body of resident professors and tutors, he put himself in line with the democratic spirit of the new century, and he brought it to pass that Yale has always been governed, in matters of discipline and education, not by its presidents alone, nor by the influence of its legal corporation or board of trustees, but by its faculties of instruction; by those who were actually engaged in carrying on the practical work of teaching.

A grandson of Jonathan Edwards, and himself an eloquent preacher and author of an important "System of Theology," Dwight also did much to enliven the somewhat arid curriculum of studies by the promotion of *belles-lettres* and the humanities in general. As a young man, he had been one of a group of Yale poets and *literati*, including John Trumbull, David Humphreys and Joel Barlow, who had aided the cause of American independence both with sword and pen, and had made a patriotic, if somewhat premature, attempt to start a national literature. Dwight and Trumbull (the author of the Revolutionary satire, "McFingal") had been chosen tutors in the college in 1771. Dwight held his tutorship for six years, and gave lectures on English style and composition. He wrote an epic, "The Conquest of Canaan," and many other poems, and is still known in general authorship by his "Travels in New England

and New York." While president, he also acted as professor of English literature and oratory.

The number of students increased from 115 in 1796 to 217 in 1800. Berkeley Hall, afterwards known as North Middle College, was erected in 1803, and the college was now definitely committed to the "dormitory system." This building was removed in 1894, but the Lyceum, also put up in 1803, and devoted to recitation-rooms, library, and chemical laboratory, is still in use. The nucleus of a law school may perhaps be detected in the institution of a professorship of law in 1801, to which the Hon. Elizur Goodrich was appointed. This was designed, however, to furnish general rather than professional instruction to the senior class on the principles of national and international law and of civil government, and on the Constitution of the United States. The first real step toward the expansion of the college into a university was taken in the organization of a medical school, under the joint control of Yale College and the Connecticut State Medical Society. The school opened in 1813, in the building now known as South Sheffield Hall, with thirty-seven students, under three professors, Drs. Nathan Smith, Eli Ives, and Jonathan Knight. By 1814, Homer, Livy, and Tacitus had been added to the number of authors in Greek and Latin formerly read; and mention is made besides of *Græca Minora*, *Græca Majora*, Adams' "Roman Antiquities," Morse's "Geography," Webber's "Mathematics," "Euclid," Tytler's "Elements of History," Blair's "Lectures on Rhetoric," Enfield's "Natural Philosophy," Vince's "Fluxions," Paley's "Moral Philosophy," "Chemistry," and Enfield's "Astronomy," among the text-books and studies of the four years' course.

Under the long presidency of Jeremiah Day (1817-46) the college advanced steadily along lines already laid down. There was especially "an increasing reliance on government by the faculty, and the development of the principle, since accepted as a fixed one in this college, that, in grave matters affecting a department, the corporation will not take action until the permanent officers have been expressly consulted, and, in particular, that the corporation, in filling a professorship in any department, will await a nomination from the professors in that department." * The yearly average of graduates from the college proper or "Academical Department" advanced from 51, under President Dwight, to 79 under his successor. A chair of rhetoric and English literature was founded in 1817, with the Rev. Chauncey A. Goodrich for its first incumbent. The professorship of ancient languages was subdivided by the choice, in 1831, of Theodore D. Woolsey as professor of Greek, and the promotion of Thomas A. Thacher, in 1842, to an assistant-professorship of Latin. The chair of mathematics and natural philosophy was divided in 1836, Professor Denison Olmsted, who had held it since 1825, continuing to give instruction in natural philosophy and astronomy, and Anthony D. Stanley being advanced from a tutorship to the professorship of mathematics. In 1841 the first graduate-professorship was established, by the appointment of Edward E. Salisbury as professor of oriental languages (Arabic and Sanscrit).

Great improvements were made, in the course of academic study, by discarding elementary subjects, such as English grammar and geography (1826), and arithmetic (1830), and adding more advanced studies, like modern languages and political economy. The standard for admission to college was raised. In 1830 the old system was abandoned, under which a division of a class was assigned to a tutor, who taught it for a year in all its studies, and the modern plan was adopted by which

* Dexter's "History of Yale University," 1887.

each tutor taught a single subject to the different divisions in rotation. The number of tutors had now risen to fourteen, and one of them, Horace Bushnell, was influential in bringing about this reform in tutorial teaching.

The alumni of the college now began to have a closer and more active interest in their *alma mater*. An alumni society was formed in 1827, which still holds annual meetings at New Haven on the day before commencement. Through the efforts of Wyllys Warner, treasurer of the college, an endowment fund of \$100,000 was raised in 1831-36 by a subscription among the alumni. Up to 1822 the gifts of the colony and state of Connecticut to Yale amounted, all told, to \$73,402.60. In that same year, the college, appealing to the legislature for aid, stated its capital at \$50,000. Its permanent productive funds, however, did not exceed \$20,000. Indeed, until a very recent period, the financial history of the college is a story of unceasing struggle with poverty—almost with bankruptcy; of self-denying effort by its officers, and of a system of small and patient economies on the part of its business managers.

The old brick row was completed by the erection of North College in 1821; the old chapel in 1824, and old Divinity College, a dormitory for theological students, in 1836. The first of these still stands. On the completion of Battell Chapel, in 1876, Old Chapel was made over into lecture and recitation rooms, and was taken down altogether in 1894. Old Divinity was removed in 1870 to make room for a new stone dormitory, Durfee Hall. The plan of the first builders was as simple as their architecture—mere accretion in a right line. But other buildings were gradually added in the rear of the row. Besides the laboratory and cabinet, already mentioned, the Trumbull Gallery was erected behind the chapel in 1832, to hold the paintings presented to the college by Col. John Trumbull, the historical painter of the Revolution. In 1868 these were removed to the new art school, and Trumbull Gallery is now occupied by the president's and treasurer's rooms, and other offices. But the first college building of any architectural pretensions was the library, completed in 1846 at a cost of \$34,000, on the western edge of the square. This is a graceful Gothic structure of rough-dressed Portland sandstone, but not constructed on modern lines, and poorly adapted to its purpose. Here the books of the college at last found permanent shelter, after lodging successively in the upper stories of the Athenæum, the Lyceum and the Old Chapel. The duties of librarian, formerly performed by one of the professors, were now entrusted to a regular librarian, Mr. Edward C. Herrick, appointed in 1843.

President Day's administration also witnessed the foundation of two new professional schools. From the earliest days of the college, classes of resident graduate students in theology had been instructed by several of the professors. But the theological school was first organized as a distinct department in 1822 by the appointment of the Rev. Nathaniel W. Taylor to a new professorship of didactic theology. He was aided at first by the academic professors, Kingsley, Fitch and Goodrich. In 1824 Mr. Josiah W. Gibbs was added to the theological faculty, as lecturer on sacred literature; and in 1839, Professor Goodrich was transferred from the academic to the theological department, as professor of the pastoral charge.

In 1824 a private law school in New Haven, conducted by Samuel Hitchcock and Hon. David Daggett, was annexed, after a fashion, by placing the names of the students on the college catalogue. In 1826 Judge Daggett was appointed Kent professor of law. The degree of LL.B. was first conferred in 1843, and it was not until 1846 that the law school was formally voted by the corporation a regular department of the college.

From this period date the beginnings of many of the traditions and institutions of

Yale undergraduate life. The "Greek Letter" fraternities and local secret societies were founded, student papers and magazines were started, most of which died young. But one of them, "The Yale Literary Magazine," a monthly, established in 1836, and edited by five members of the senior class, has been published continuously from that day to this, maintaining a high standard of excellence, and is now the oldest college periodical in existence. The nucleus of the Yale Navy is found in a number of racing boats bought by the different classes in 1842—the "Pioneer," the "Iris," the "Nautilus," etc., though it was many years later that the annual regattas with Harvard were instituted. Undergraduate life was still very rough. There were conflicts with the faculty:—a "Bread and Butter Rebellion" in 1828, a "Conic Sections Rebellion" in 1830, are historical;—and town and gown rows, in which the students were led by a champion known as the "Bully," elected by each senior class, and wielding a famous weapon called the "Bully club," originally wrested from a riotous townsman. There were fights between students and sailors, and later between students and firemen. In 1820 a town mob attacked the medical school, because of the rumored digging up of a body by resurrectionists. A generation later than this, a townsman was killed by a student in a street fight (1854), and another in 1858. On the first of these two occasions the town mob trained a cannon upon South College, which had been barricaded against them. Unpopular tutors were sometimes smoked or knocked down, and one was killed in 1843. The Commencement Day procession in 1840 was broken up by a faction fight in the senior class. The numerous southern students in college constituted a turbulent element. They had their own literary or open society, the Calliopean, founded in 1819; dissolved in 1853.

The presidency of Theodore Dwight Woolsey (1846–1871) was signalized by many important steps in the progressive development of the university, but above all by the creation of the Sheffield Scientific School. The elder Professor Silliman had given advanced instruction in chemistry to graduate students, and in 1842 his son, Benjamin Silliman, Jr., had opened a private school in the college laboratory, which he fitted up at his own expense. In 1846 the need of better organized graduate instruction, more particularly in the natural and physical sciences, was recognized by the establishment of two new professorships, one of agricultural chemistry and one of applied chemistry, to which John P. Norton and Benjamin Silliman were respectively appointed. There was already one graduate professorship (unendowed), that of oriental languages, held by Professor Salisbury. President Woolsey, when professor of Greek, had taught scholars who had already taken the bachelor's degree; and it was at his suggestion that the new school of graduate instruction was to be made wide enough in its scope to include not only physical science, but advanced work in philology, philosophy, and other studies not professional and not provided for in the undergraduate college or academic department. It was decided to call the new school the "Department of Philosophy and the Arts," a term now used to designate not only the graduate schools, but the academic college and the undergraduate classes of the Sheffield Scientific School. It was stipulated that the cost of the new department should not become a tax upon the college funds. The old president's house was refitted as a chemical laboratory, and the first class was organized in 1847, the new professors serving practically without pay. In 1852 the degree of Bachelor of Philosophy (Ph.B.) was conferred for two years' successful study in this department.

In spite of its poverty, the energy and devotion of its professors and the demand in the country for "the new education" soon built up the new department into one of the most powerful branches of the university, and gave it the leading place among

the scientific schools of the United States. A chair of civil engineering was founded in 1852, and filled by Prof. Wm. A. Norton, who opened recitations in the attic of Old Chapel, with a class of twenty-six students. Professor Silliman, Jr., had left the school in 1849. Prof. J. P. Norton died in 1852, and was succeeded by Prof. John A. Porter in the chair of analytical and agricultural chemistry. In 1854 the great orientalist, W. D. Whitney, was chosen to the professorship of Sanscrit. In this year the new department was recognized as virtually divisible into the graduate school proper, including advanced courses in philosophy, philology, mathematics, etc.; and the "Yale Scientific School," under which head the students of chemistry and of civil engineering were entered in the college catalogue for 1854-55. Professor Whitney was, in fact, a "university" professor, though his subsequent engagement (in 1860) as teacher of modern languages to undergraduate classes in the Scientific School identified him more closely with that department. In 1855 George E. Brush was appointed professor of metallurgy; in 1856 Samuel W. Johnson, professor of agricultural and analytical chemistry (Professor Porter devoting himself thenceforth to organic chemistry), and in 1859 the Rev. Chester S. Lyman, professor of industrial mechanics and physics.

In this latter year the school found a generous benefactor in the person of Mr. Joseph E. Sheffield, who bought for its use the old medical college at the head of College street, refitting it, adding two wings and furnishing it with apparatus. He also started an endowment fund with \$50,000. In recognition of these gifts the corporation, in 1860, named the new department the Sheffield Scientific School. In 1865 Mr. Sheffield further enlarged Sheffield Hall by the addition of an astronomical observatory. In 1873 he built and equipped a second building, North Sheffield Hall. His total benefactions to the Scientific School, by way of gifts and bequests, amount to something like \$700,000. In 1863 the state legislature appropriated to the school the income from the fund of \$135,000 assigned to Connecticut by act of Congress from the sale of public lands, for the furtherance of agriculture and the mechanic arts. The school now grew with unexampled rapidity. New courses and new professorships were added: physical and political geography, Daniel C. Gilman (1863); agriculture, Wm. H. Brewer (1864); zoölogy, Addison E. Verrill (1864); botany, Daniel C. Eaton (1864); mining, Alfred P. Rockwell (1865); dynamical engineering, (1870); English, Thos. R. Lounsbury (1871); metallurgy, Oscar D. Allen (1871). The permanent professors, with the president, were constituted a governing board. In 1865 the course of study for the Ph.B. degree was extended to three years.

With its organization thus completed the Sheffield School attained the dimensions of a second and independent college. Although its sphere is primarily the physical sciences, it is by no means a mere professional or technical institute. It secures a liberal basis for special study by enforcing, in freshman year, a uniform course in mathematics, physics, chemistry, botany, physical geography, drawing, English, French and German. Some knowledge of Latin and history is required for admission. There is a "select course" embracing linguistics, political science, history, English language and literature, German, French and English composition.

In the internal affairs of the college President Woolsey gave an important impulse to the study of political science, and, in general, to the broadening and strengthening of the entire work of the senior year. He taught the senior class in political science and international law, and in history until 1865, when the appointment to a new chair of history of Professor Arthur M. Wheeler made separate provision for the last-named subject. The course of study in the upper years was further enriched by the creation, in 1847, of the Clark professorship of moral philosophy

and metaphysics, with Noah Porter for its first incumbent; by the foundation of a chair of geology in 1850 (to which mineralogy was added in 1864), filled by the distinguished scientist, James D. Dana, and by the appointment of Edward B. Coe to a new professorship of modern languages in 1864.

Another off-shoot from the old college was the School of the Fine Arts, founded by Augustus R. Street, a citizen of New Haven, in 1864. A handsome stone building for the accommodation of the school, with galleries, class-rooms, studios, libraries, etc., was erected in 1864-66 on the southwestern corner of the college square, at a cost of \$175,000. Mr. Street—and Mrs. Street after his death—also endowed the school, which was organized into a department of the University, in 1869, by the appointment of John F. Weir, N.A., as professor of painting and director of the school. D. Cady Eaton was chosen professor of the history of art, and J. H. Niemeyer, in 1871, professor of drawing. Other instructors have been added from time to time. The paintings in the Trumbull Gallery were transferred to the new Art School building in 1868. In the same year the school acquired the Jarvis collection, illustrative of the history of Italian painting. Many other paintings, casts, wood carvings, etc., have been since purchased or given. Loan exhibitions have been held, lecture courses given, and instruction furnished, not only to the regular classes in the school, but to students of the college and scientific school. The annual reception, and the exhibition of the work of the students, is eagerly attended by citizens of New Haven, to whom the school is a fountain of æsthetic culture.

In 1853 was completed Alumni Hall, a castellated Gothic building in red sandstone, on the northwest corner of the college square. The lower story is a large hall, used for examinations and for the annual meetings of the alumni at commencement, and is hung with portraits of benefactors, college officers and distinguished graduates. The three large rooms in the upper story were once occupied by the Linonian Brothers in Unity and Calliopean Societies, but are now given over to recitation and examination uses. During the year 1868-69, the question was agitated whether it might not be well to move the college into the suburbs, in order to get more room for expansion. The project was given up, but the plan was then formed of ranging all future buildings upon the outer edge of the college square, an area of some nine acres, facing inward. The design was, in time, to form a hollow quadrangle, and to gradually tear down the old brick row. Alumni Hall, the Library and the Art School, already built along the west side of the square, lent themselves, after a fashion, to this plan; but the first buildings erected with the plan in mind were Farnam and Durfee halls, the former a brick and the latter a stone dormitory, built in 1869-71, and now connected, if not entirely harmonized, by the Battell Chapel, a cruciform structure of New Jersey sandstone, with a rounded apse at the eastern, and two towers at the western end, which was completed in 1876.

About the years 1869-71 appeared what was called the "Young Yale" movement, a rather vaguely expressed, though clearly shown dissatisfaction among the younger graduates with the conservatism of the college government. It was urged especially that there was a too preponderant clerical element in the corporation, and that the alumni ought to be represented. Finally, in accordance with a suggestion of President Woolsey, made as far back as 1866, the state, in 1871, agreed to relinquish a share of its claim to the government of the college; and the six senior senators were displaced by six graduates, to be chosen, one each year, by the alumni at their commencement meeting, and to hold office for a term of six years. The first graduate members of the corporation, thus elected, were Alphonso Taft, Wm. M.

Evarts, Wm. B. Washburn, Henry B. Harrison, Wm. Walter Phelps, and Joseph E. Sheffield.

The growth of the professional schools hardly kept pace with that of the Academical College and the Sheffield School. The Medical School has suffered from the competition of rivals in the large cities, with their greater abundance of clinical material and their advantages in the way of hospital practice. Still, the funds were somewhat increased, more instruction was added, and a new three-story brick building was erected on York street, in 1860, for the use of the school, and a laboratory started there in 1865. The Law School, too, competed on unequal terms with the large and flourishing schools at Cambridge and New York. It dwindled in numbers, and in 1869 the death of the Hon. Henry Dutton left it without an instructor. The Divinity School fared somewhat better, though its members increased, but slowly. It was practically reconstructed in 1858 by the appointment of new professors, received several endowments, and decided in 1866 to confer the degree of Bachelor of Divinity upon its graduates. At the close of President Woolsey's administration, the faculty of the school consisted of six permanent professors and several special lecturers. A popular feature was added to the course in 1871 by the endowment of the Lyman Beecher Lectureship on Preaching. These lectures are delivered annually by distinguished clergymen of various denominations. The school found permanent quarters in two handsome, five-story brick buildings, known as East and West Divinity Halls, and erected respectively in 1870 and 1874 on land north of the college square. Between them is the little Marquand Chapel, built in 1871.

President Woolsey was succeeded by the Rev. Noah Porter (1871-86). The fact that Yale had now become a university in all but the name was formally recognized by a vote of the corporation in March, 1872, defining the four departments of the university, as those of theology, law, medicine and of philosophy and the arts; the last name comprising the school of the fine arts and "the faculties which severally instruct the members of the university who are prosecuting their studies as candidates for the degree of Ph.D., the degree of A.B., or the degree of Ph.B." The most striking features of President Porter's administration were the development of the graduate department and the partial adoption of the elective system of studies in the academic department.

Mention has already been made of the fact that advanced instruction to graduate students in chemistry, civil engineering, philology, and mental and moral philosophy had been furnished in the forties and fifties. The Scientific School, indeed, was an outgrowth of the graduate department and was not at first distinct from it. The undergraduate department of the Scientific School—the three years' course of study leading up to the Ph.B. degree—was gradually evolved as a necessary preparation for more advanced technical work. The chair of Oriental Languages was a graduate chair, not attached to any undergraduate department of the university. The advanced instruction in Greek, Philosophy, etc., had been given by professors in the Academical College. As early as 1860 the degree of Doctor of Philosophy (Ph.D.) had been offered to Bachelors who should reside two years more in New Haven in successful prosecution of advanced, unprofessional courses of study. In the same year the degree of Civil Engineer was offered to those Bachelors of Philosophy who should take one more year of work in engineering. In 1873 the term of study for this last degree was extended to two years, and the degree of Dynamic or Mechanical Engineer was offered on similar conditions.

An effort was now made to organize and develop this graduate work. Courses were offered especially in the so-called "practical" and "popular" subjects, such as

History, Political Science, English and Modern Languages, which attracted numbers of students and were widely, and somewhat mistakenly, advertised by the newspapers as a "Yale School of Journalism." Residence and study for these higher degrees were promoted by the growth in endowments for graduate scholarships and fellowships, which increased in number from seven to seventeen during President Porter's administration. At the close of this administration, furthermore, two new professorships were added to the Graduate Department: in political science, filled by Arthur T. Hadley, who has since become a member of the Academical Faculty; and in Semitic Languages, filled by Wm. R. Harper, now president of the University of Chicago. This movement has never gone backward; and the catalogue for the present year (1896-7) exhibits two hundred and twenty-seven graduate students in attendance, with two hundred and twenty courses in the following General Departments of study: 1. Psychology, Ethics and Philosophy; 2. Political and Social Science and History; 3. Oriental Languages and Biblical Literature; 4. Classical Philology; 5. Modern Languages and Literatures; 6. Natural and Physical Science; 7. Pure and Applied Mathematics; 8. The Fine Arts; 9. Music; 10. Physical Culture. The Graduate School is organized with a dean and administrative committee, its faculty composed of the professors in the several sections of the Department of Philosophy and Fine Arts. The Ph.D. degree with the courses in the Graduate School leading thereto, is now open to women upon the same terms with men.

A practical recognition of this expansion of the college into the university and of the larger financial needs that the process involved, was the appointment of a committee of ten by the Alumni Association at its commencement meeting in 1871, to raise by subscription a fund of \$500,000, to be called the "Woolsey Fund," and devoted to general university purposes. Owing partly to the financial crisis of 1873, the fund fell short of the contemplated amount; but the \$168,000 subscribed was a great help to the university.

Up to 1876 the curriculum of study in the College or Academic Department had been virtually the same for all students, though a very limited option had been allowed in junior year (between Greek and calculus). But the large number of new studies which now competed for attention, and the miscellaneous and superficial character of the education which resulted from crowding all of these into the college course, without making room for them by displacing some of the older subjects, brought up in a more pressing shape the old question as to the comparative advantages of required and elective studies. Harvard had just revolutionized its whole scheme of instruction by the wholesale introduction of the elective system. That the change was popular was shown by the rapid increase in the number of students. Yale was more conservative, but after much opposition, a concession to the elective principle was made in 1876, as to nearly one-half of the work of senior and junior years. This was extended, in 1884 to four-fifths of the work of senior year, and somewhat more than half of the work of junior year. At present (1896-7) the prescribed studies of senior year occupy two out of fifteen hours per week, and those of junior year three out of fifteen. Sophomores are allowed to choose five out of six courses and in one of these a further option is allowed (between French and German).

There was a large increase in the teaching force during these years, and new chairs were founded in mathematical physics (1871), political and social science (1872), and American history (1877), and occupied respectively by Profs. J. Willard Gibbs, Wm. G. Sumner and Franklin B. Dexter. Molecular physics was added to chemistry, and assigned, in 1871, to Prof. Arthur W. Wright, and in 1872 the

appointment of Franklin Carter to a professorship in German made it possible to devote the Street chair of modern languages exclusively to French.

The college quadrangle continued to grow by the erection, in 1886, of Lawrance Hall, a five-story brick dormitory, continuous with Farnam College; and of Dwight Hall, a handsome stone building put up at the same time, on the western side of the square, as a resort for the college branch of the Y. M. C. A. The Sloan Physical Laboratory (1883), and the Kent Chemical Laboratory (1887), both of them on land west of the college square, gave practical efficiency to the new courses in physical science opened up by the elective system.

The period under review also saw the establishment of two important adjuncts to the university: the Peabody Museum of Natural History and the Winchester Observatory. The former was the gift of George Peabody, of London, who, in 1866, gave in trust the sum of \$150,000 to found a museum of zoology, geology and mineralogy in connection with Yale College. In the same year Prof. Othniel C. Marsh, a nephew of Mr. Peabody, and chairman of the board of trustees, was chosen professor of palæontology. Of this sum \$100,000 was to be used in erecting a fire-proof museum, \$30,000 was to be invested as an income-bearing fund to provide for the running expenses of the museum, and \$20,000 was set aside, to accumulate, as a building fund for the future enlargement of the museum. In 1876 the first wing of the museum was completed and furnished with cases at a cost of \$175,000. The Peabody stands on land given by the corporation, west of the college square. It is a four-story building, with high basement and attic, and contains, besides laboratories, work-rooms, lecture-rooms, private cabinets, etc., the large exhibition rooms in which are deposited and arranged the valuable collections of minerals and of geological, palæontological, zoological and archæological specimens belonging to the university. These include the great series of fossils collected by the "Yale Scientific Expeditions" in the West, under Professor Marsh's leadership, in 1870-75, of which Huxley said that he knew of nothing comparable for extent or for their scientific importance.

Land for an astronomical observatory had been given in 1866 by Mrs. Cornelia L. Hillhouse and her daughters, about a mile north of the college, on Prospect Hill. In 1879 the Hon. Oliver F. Winchester, of New Haven, deeded to trustees, for the benefit of the observatory, the thirty-two acres of land adjoining, purchased by him at a cost of \$100,000. A portion of the observatory buildings was erected and equipped in 1882, with residences for the officers on the grounds. A horological bureau, for furnishing standard time, was organized, and a thermometric service established. The staff of the observatory consists of a director, secretary and assistant astronomer. By the will of Professor Elias Loomis (o. 1889) the observatory receives one-third of the income, and will, in time, receive the whole income of a fund of over \$300,000, for the endowment of astronomical research.

In 1872 the law school was thoroughly reorganized. Four members of the New Haven bar, Judge Wm. C. Robinson, Hon. Simeon E. Baldwin, Johnson T. Platt and Hon. Francis Wayland, were put in charge as professors; money for a library was raised by gifts and subscriptions, and the school was accommodated with spacious apartments in the new court-house, which it occupied until the completion, in 1894, of a building of its own on land north of the New Haven green. A two years' course of study was arranged in 1873; an examination for admission was first required in 1875, in which year the school held its first public commencement. In 1876 graduate courses of one and two years were established, leading up to the degrees of Master of Laws and Doctor of Civil Law, respectively. New professorships

and lectureships have been subsequently added, the library increased to nine thousand volumes and a number of prizes endowed. The catalogue of 1896-97 shows an attendance in this department of two hundred and thirteen students.

The Medical School continued feeble and was crippled by want of funds. It received a few gifts, and some improvements were made in the lecture rooms and laboratories and in the character of the instruction. In 1879 the course of study was lengthened to three years. In spite of this, the number of students diminished, and by 1886 had dwindled to twenty-seven. It has since risen to one hundred and thirty-eight (1896-97), the period of study having been recently extended to four years.

The group of buildings belonging to the Divinity School was completed by the erection of the Bacon Memorial Library in 1881. A graduate course has been opened and two graduate fellowships founded. But relatively to other departments of the university, the school has not held its own in point of attendance. The number of students, which had risen to one hundred and thirty-six in 1890, has fallen to one hundred and four in 1897.

During this same period (1871-86) the number of students in the Sheffield School was nearly doubled, and five new professorships were added, viz.: of Mathematics (1873); Chemistry and Comparative Anatomy (1875); Physiological Chemistry (1882), and Physics (1884). In 1872, when Prof. Gilman left to assume the presidency of the University of California, the vacant chair of Political Economy and History was filled by Gen. Francis A. Walker, and Prof. George E. Brush was appointed by the corporation to the executive directorship of the school. The governing board of this department now consists of the president of the university, the director and fourteen permanent professors. With these are associated forty-three additional instructors. The number of students in attendance is at present (1896-97) five hundred and fifty-three.

With the accession to the presidency of Timothy Dwight (1886), a grandson of the first President Dwight, Yale entered upon a new career of development. Within the past ten years the growth in wealth, numbers and teaching power has been unprecedented in the history of the university. Previous presidents, though legally and theoretically the head of the corporation and of all the faculties of the university, had been practically presidents of the Academic College and active members of its teaching staff. But the expansion of the institution and the vastly more complicated organization which it had taken on, as a consequence of the increase of its professional schools and supplementary departments, made it necessary that the president should henceforth be less of a teacher and more of an executive officer, devoting himself to the oversight of the whole university. President Dwight accordingly made it a condition of his acceptance of the office that he should be relieved of the work of instructing classes. The emphasis which he laid upon the university idea resulted at once in the act passed by the Connecticut legislature in 1887, authorizing the use of the title "Yale University" by the president and fellows of Yale College. Yale, which was already a university in fact, thus became one in name.

It would be impossible, in the space at command, to enumerate the individual gifts by which the material resources of the University have been so rapidly extended, or the additions which have been made to its faculties of instruction. The general lines of growth, and some of the most important particulars may, however, be noted. The need of enlarged accommodations for the library was met by the completion, in 1890, of a new building, presented by Mr. Simeon B. Chittenden, and costing \$125,000. This is a fire-proof building, three stories in height, of Longmeadow brown freestone, and Romanesque architecture, on the most modern and

scientific principles of library construction, containing reading-rooms, rooms for the storing of books, offices for the librarians, etc. It is connected temporarily with the old library by a corridor, and is designed to form, ultimately, the south wing of the great University library of the future, when the old building shall have been removed. The whole number of volumes, exclusive of unbound pamphlets, in the several libraries of the University, is now (1897) about two hundred and forty-five thousand, and for some years past the average yearly increase has exceeded five thousand volumes.

In January, 1890, Osborn Hall was ready for occupancy. This is a memorial building, erected by Mrs. Miriam A. Osborn, of New York, on the southeast corner of the college square, at an expense of \$180,000. It has some twenty recitation and lecture-rooms, is built of granite and red sandstone, in the Romanesque style, and decorated with elaborate stone carvings. The remaining gaps in the quadrangle have been filled by the completion of Welch (1892), Vanderbilt (1894), and Phelps (1896) Halls, the first two of which are dormitories for academic students, and the last is devoted to the recitation-rooms, consultation rooms, and special libraries of the department of ancient languages. Welch Hall, the gift of Mr. Pierce N. Welch, of New Haven, is a four-story building of Longmeadow stone, constructed, like Durfee Hall, on the Academic Gothic model of the Oxford and Cambridge Colleges. Vanderbilt Hall, the gift of Mr. and Mrs. Cornelius Vanderbilt, of New York, furnishes lodgings for one hundred and twenty-nine students, and is probably the most elegant, costly and perfectly-equipped collegiate building in the United States. It fronts the southern edge of the quadrangle, and encloses upon three sides a little quadrangle of its own, one hundred and three feet by seventy-six feet, separated from Chapel street by a high iron fence with two lofty gates. The tower on the north side is pierced by an archway which gives access to the main college yard.

Phelps Hall is in form a massive gate tower, six stories high, which connects Lawrence and Welch, and through its vaulted entrance forms the principal approach to the college yard from the eastern or College street side of the square. It was a present from the Phelps family of New Jersey, and cost \$120,000. The dedication of Phelps Hall to classical studies is an interesting indication of what will probably be the future policy of the university, viz., the segregating of all departments of work so far as convenient in buildings of their own. Vanderbilt and Phelps are both, of course, of stone. The only brick buildings now on the College square are the remnants of the old row, the treasury, and the two dormitories (Lawrence and Farnam), which were premature embodiments, in a cheaper material, of the quadrangular plan. The original square having now been occupied, further dormitory accommodations on adjoining or neighboring land owned by the university, have been furnished by the erection of White and Berkeley Halls (1894) on Elm and High streets, and of Pierson Hall (1896) on York street. These are all fire-proof brick buildings, architecturally plain, but well-built and commodious. White and Berkeley are the beginning of a second quadrangle north of the old college square, designed in time to enclose a central lawn or courtyard a hundred feet wide. A laboratory of experimental physiology was opened on Elm street, next to West Dormitory Hall, in 1892, under the charge of Dr. E. W. Scripture. The growth of athletics among the undergraduates resulted in the erection of a new boat-house on Mill River in 1875, at a cost of \$16,500, and of the purchase in 1881 of the Yale Field, a tract of about thirty acres on West River, a mile from the college, laid out in base-ball diamonds, a foot-ball field, a running track, tennis courts, etc., and supplied with a grand stand, jumpers, dressing rooms, etc. The old gymnasium, a small brick building, put up in 1859,

had also become antiquated, and through the exertions of Professor E. L. Richards and a committee of graduates, a new and thoroughly equipped gymnasium was opened on Elm street in 1893, at a cost of \$225,000. The money for the boat-house, the Yale Field, and the Richards gymnasium, was raised by subscription among the graduates and friends of the college.

During the present administration, the Scientific School has also built largely. Winchester Hall, a building designed for engineering, mechanical and physical laboratories, and to furnish facilities for practical instruction in electro-technics, was opened for use in 1893, on ground between north and south Sheffield Halls. The cost of the building, \$130,000, was defrayed by Mrs. Jane E. Winchester, of New Haven. In 1889 the Sheffield family mansion and grounds adjoining the property of the school had also come into its possession, and the house was made over into a biological laboratory, including laboratories of physiological chemistry, comparative anatomy, and botany. A three-story building for chemical laboratories and lecture-rooms was erected in 1893-94, north of North Sheffield Hall.

Through the exertions of a number of ladies in New Haven and New York, a fund for a Yale Infirmary for the care of sick students was raised in 1891-92. A lot was purchased on Prospect street, and the building formally opened in January, 1893. The amount collected was \$38,700.

The latest department of instruction in the university with a separate faculty and organization of its own, is the Department of Music. A step towards this was taken by the founding of the Battell Professorship of Music, with Dr. G. J. Stoeckel, who had been for many years instructor in music in the university, as its incumbent. Dr. Stoeckel formed a voluntary class from the students of other departments, in preparation for elective courses to be offered in 1890. But it was not until 1892 that students in music alone were provided for. At present the department numbers seventy-six students of both sexes, who are instructed by two professors and two instructors. Theoretical courses are given in harmony, counterpoint, the history of music, strict composition, instrumentation and free composition, and practical instruction in playing the piano-forte, organ, and violin. The degree of Bachelor of Music is given under certain conditions. The purchase of the College street church building in 1894 furnished the department with a large auditorium and with rooms for the use of the professor of applied music. The symphony concerts and university chamber concerts, given under the auspices of the department, have attracted large audiences.

The number of students in all departments of Yale University is now (1896-1897) 2495. The number of teachers, including temporary instructors, laboratory assistants, special lecturers in various branches, etc., is 238.

CHAPTER LXVI.
TRINITY COLLEGE.

BY PROF. SAMUEL HART, D. D.

THE foundation of a second college in Connecticut was long delayed. To trace the causes of the delay would require a full study of the history of the State and of the controversies, civil and religious and educational, which raged most violently about the time of the adoption of the Constitution in 1818. It must suffice to say here that the charter of Washington College was at length granted by the General Assembly in 1823; and the trustees were empowered to locate the institution in such town in the State as they should judge most expedient. Very liberal contributions to the funds of the new college, amounting to over three-fourths of its original endowment of \$50,000, were made by the people of Hartford, and that city was chosen as the permanent home of an important seat of liberal study. A site of fourteen acres on a slight elevation, then described as about half a mile from the city, was purchased, and the erection of two slightly halls of brown stone was begun in June 1824. These buildings, with a third which was erected in 1845, formed a line running north and south on the ridge of what are now the capitol grounds. The campus was planted with trees, and advantage was taken of the natural capacities of the site to make it very beautiful and attractive. In course of time Bushnell Park was laid out to the north and east, so that the attractiveness of the spot was much enhanced, and the college seemed to be brought nearer to the city.

The first president of the college was the then bishop of Connecticut, Dr. Thomas Church Brownell, a graduate of Union College, and formerly a professor there, a man of scholarly tastes and gentle wisdom. He was succeeded by Dr. Nathaniel S. Wheaton, a warm friend and generous benefactor of the institution from the beginning, and by Dr. Silas Totten, afterwards chancellor of the University of Iowa.

In 1848, for the first time, an alumnus of the college was elected to the presidency, Dr. John Williams, a young scholar of rare promise, who, after holding many offices of labor and trust for his *alma mater*, is now its honorary chancellor and bishop of Connecticut. A short time before his accession the name of the institution had been changed to Trinity College, a title suggestive of high scholarship and lofty ideals. Bishop Williams's successors in the presidency were Drs. Goodwin, Eliot, Kerfoot, Jackson, and Pynchon, the two last-named being also alumni. With a well-furnished library, a useful cabinet for work and illustration, a learned faculty, and a gentlemanly body of undergraduates, the college has been for all these years a source of pride to the city, and has furnished important factors to its intellectual and social life.

In 1872, Hartford having become the sole capital of the state, the trustees were persuaded to sell the site of the college, with the entire campus, to the city, that it might be offered as the most suitable location for the state-house ; and a new site was chosen for the college on the trap-ridge which lies in the south-west part of Hartford. On this commanding site, with a magnificent view of two valleys, bounded on the one side by the Bolton Hills and on the other by the Talcott Mountain range, about eighty acres of land were purchased ; and President Jackson called the skill of a famous English architect to prepare plans for an unequalled pile of academic buildings. He believed that a well-established college, having sufficient funds to provide for its present needs and the hope of great growth in the future, and about to transfer its work to a new place, should have plans for all the buildings which it was likely to require in the course of many years. He therefore caused designs to be made on a very large scale, more extensive and more elaborate than have ever been made for any similar purpose. They include, as finally arranged, a large central quadrangle, 600 by 300 feet, with a smaller quadrangle, 300 feet square, at either end, all in what is called the early secular French Gothic style of architecture. The accomplishment of the whole plan must be left for future generations. At present the west side of the great quadrangle is completed, containing rooms for the junior professors and for about 125 students, several lecture rooms, a fine museum or cabinet, a handsome little chapel, and temporary provision for the library. A fine and well-furnished gymnasium, with an alumni hall, stands outside of the space assigned to the quadrangle on the north campus ; and in the corresponding situation on the south side is the handsome laboratory building, unsurpassed in the excellence and completeness of its arrangements, and affording facilities for the practical work of the courses in science. Besides the buildings mentioned, there is a modest observatory on the south campus ; and the residences of the president and one of the professors stand on Vernon street. The campus, on which much labor has been bestowed, is destined to be one of the most beautiful and attractive parts of the city. Four of the students' societies have handsome chapter-halls, three in the neighborhood of the college and one at a little distance.

Trinity College offers the opportunity for instruction in the arts, with ample adaptation to the needs of the day and the requirements made upon modern scholarship. Part of the course is prescribed, but there is a large range of elective studies. There are also a course in science and a course in letters and science, in both of which special attention is paid to advanced work in physics and chemistry and to the mathematics and the modern languages, and in the latter of which a certain amount of Latin is retained. A course in letters is found best adapted to the tastes of some students.

The advantages offered by the college under the administration of the present president, the Rev. Dr. George Williamson Smith, have been continually increasing, and the number of names on the roll of students has been larger than at any previous time. A little more than a year ago, action was taken by the Hartford Board of Trade looking to the establishment of a technical school to be associated with the college. The trustees of the college have assented to the proposal, and have taken concurrent action. The trustees have also voted that they will gladly co-operate in the establishment of colleges in the city of Hartford in connection with Trinity College under university government.

The number of graduates of the college is over eleven hundred and fifty, of whom about seven hundred and fifty survive, and a large part of whom occupy prominent and influential positions in the church and in the state, in colleges and

universities, in the courts, at the bar, and in the practice of medicine, as well as in active business pursuits ; while no inconsiderable number have gained or are gaining for themselves honored names as authors in various departments of literature. The names of benefactors are perpetuated in buildings, endowed professorships, library and scholarship funds, and prizes for work of special merit. Thus the many friends of the college are uniting with the officers and students within the walls and the alumni in the varied duties of life in carrying out the teaching of her motto, "*Pro Ecclesia et Patria.*"



CHAPTER LXVII.

WESLEYAN UNIVERSITY.

BY WILLIAM NORTH RICE.

WESLEYAN UNIVERSITY was founded in 1831. It is the oldest college now extant which was founded and which has remained under the patronage of the Methodist Episcopal Church. The religious movement which had its origin in Oxford, was bound by its history to be in sympathy with the idea of Christian education. It was the earnest desire of the broad-minded Bishop Asbury, in the earliest years of the Methodist Episcopal Church in this country, to lay the foundations of a college. The early attempts, however, proved abortive, and it was not until nearly half a century after the establishment of the church that a permanently successful college was founded. There is something pathetic in Asbury's lamentations over "the superstition of some, and the pride and ignorance of others," by which his enlightened views in regard to education were prevented from being realized. In the decade between 1820 and 1830, the academies at Wilbraham, Kent's Hill, and Cazenovia were founded, and secured at once a large attendance. It became manifest to thoughtful men in the church that the time was ripe for the foundation of a Methodist college.*

At this juncture an accidental opportunity led to the establishment of Wesleyan University at Middletown, Conn. In 1825, Captain Alden Partridge, formerly Superintendent of the United States Military Academy at West Point, had established in Middletown a school known as the American Literary, Scientific, and Military Academy. Two substantial stone buildings had been erected, and, for a short time, the school had been in a prosperous condition. Its prosperity, however, had soon waned, and, in 1829, it had been removed to Norwich, Vt., leaving vacant the buildings it had occupied.

Rev. Laban Clark, D.D., then Presiding Elder of the New Haven District, learned of the opportunity which was offered for the purchase of these buildings at a nominal price, and brought the matter to the attention of the New York Conference. The result was the appointment of a joint committee, representing the New York and the New England Conferences, to consider the project of establishing a college. The committee issued proposals inviting subscriptions from various towns as bids for the location of the college. The offers of Middletown were now put in such a form as to secure the award without hesitation. The Trustees of the old Academy offered the entire property, valued at about thirty thousand dollars, to the Conferences, on the two conditions, that it should be perpetually used for a college or university, and

* An excellent Historical Sketch of Wesleyan University, by Prof. C. T. Winchester, is contained in the *Alumni Record*, editions of 1873 and 1883. The historical part of the present article is essentially an abridgment of Prof. Winchester's sketch. I have not scrupled even to use his language where it was convenient to do so.

that a fund of forty thousand dollars should be raised for the endowment of the college. About eighteen thousand dollars of this fund was promptly subscribed by citizens of Middletown. The committee unanimously recommended the acceptance of these offers, and resolutions to that effect were adopted by the two Conferences in the spring of 1830. The forty thousand dollars was soon raised, trustees were chosen, and the college organized under the name, "The Wesleyan University." *

At the first meeting of the Joint Board of Trustees and Visitors, August 24, 1830, Willbur Fisk, D.D., then Principal of Wesleyan Academy, Wilbraham, Mass., was elected President of the new institution. In May, 1831, a charter was granted by the General Assembly of Connecticut, and, on the 21st of September, the halls of the new university were opened to students. In that day of small things the faculty consisted of the president, three professors, and one tutor; and the students numbered forty-eight.

The choice of Willbur Fisk as president was a most felicitous one. His pure and lofty piety and his gentle and winning manner endeared him to all who knew him; while his tact and prudence, his high administrative ability, and his untiring efforts in behalf of the college, soon assured its success and secured for it general recognition. Few men have ever possessed in richer measure those attractive traits of character which constitute the *gentleman* in the best sense of that word; and thereby it came to pass that Dr. Fisk, the representative of a religious denomination then poor and despised, at once took a position in the social and civic life of the aristocratic old town, as prominent as has been accorded to any of his successors. To the students of those early years his presence was a benediction and an inspiration.

At the death of Dr. Fisk, in 1839, Stephen Olin, D.D., who was then traveling in Europe, was elected President. His state of health, however, did not permit his assumption of the duties of the office, and he resigned in 1841. Nathan Bangs, D.D., was elected President, but resigned after an administration of little more than one year, and gladly returned to the more congenial work of the ministry. Dr. Olin's health had so far improved that he accepted the presidency, which was offered to him a second time, in 1842. His fame as a pulpit orator, and his previous success in a similar situation, caused him to be greeted with an enthusiastic welcome. His health, however, during the remaining years of his life, was too feeble to allow him to do any large amount of teaching, or to attend continuously to the details of administration. But the majestic eloquence of his occasional sermons and addresses is one of the priceless memories in the lives of all who were connected with the college in those years.

During those years much of the duty of administration was attended to by the senior professor, Augustus W. Smith, LL.D. Dr. Smith was one of the original faculty of the college; and, in all the years in which he had been connected with it, had been recognized as a teacher of surpassing ability in his chosen department, mathematics. At the death of Dr. Olin, in 1851, John McClintock, D.D., was elected President, but he declined the office, and in the following year Dr. Smith's great and varied services to the college found recognition in his election to the vacant position. During his administration a subscription of \$100,000 was made for an endowment fund; and more than four-fifths of this sum was actually paid in and invested. In this fund were received the first considerable contributions from Isaac Rich, whose munificent gifts in later years to Wesleyan and to Boston University

* In the amendment of the charter in 1870, the name of the institution was changed by the omission of the article.

were destined to give him so honorable a position among the donors of educational endowments.

President Smith resigned in 1857, and for the first time in its history an alumnus of Wesleyan was called to preside over the college. Joseph Cummings, D.D., had already achieved success as President of Genesee College, when he accepted the call of his *alma mater*. Dr. Cummings was a stimulating and inspiring teacher in philosophy and cognate studies, possessing in rare degree the power of awakening the mind of a student to independent thought. But his administration is chiefly memorable for the increase of the material resources of the college. Three buildings, which still remain the chief architectural adornments of the campus, date from this period. These are the Library, the gift of Isaac Rich; the Memorial Chapel, which commemorates the alumni and students who fell in the war for the Union, and which was paid for by general subscription; and the Orange Judd Hall of Natural Science, the gift of Orange Judd, of the class of 1847. The last is noteworthy as being the first large donation which the college had received from one of its alumni. Besides these monumental buildings, the period of Dr. Cummings' administration was marked by the erection of a gymnasium, the purchase of a fine telescope of twelve-inch object glass, and the construction of a substantial tower for its reception on the building now named Observatory Hall, the organization of the Museum of Natural History in Judd Hall, the raising of the Alumni Library Fund, and considerable accessions to the general endowment.

Dr. Cummings resigned the presidency in 1875, though he retained for three years longer the professorship of philosophy. He was succeeded by another alumnus, Cyrus D. Foss, D.D. Notwithstanding the large gifts which had signalized the brilliant administration of his predecessor, Dr. Foss found the institution in a financial situation most critical. Under the stress of the panic of 1873, some of the securities in which the endowment was invested became worthless, and others yielded a diminished income. A debt had been gradually accumulated by a small excess of expenditure over income—a debt which in flush times had seemed harmless, but which in time of panic became perilous. The advance which had been made in the number of instructors, in the breadth of the curriculum, and in the provision of laboratory facilities for study and investigation, increased the necessary expenses. It appeared that the annual expenditure must be forty-six thousand dollars, while the annual income was only twenty thousand. The president and other friends of the college met the emergency with faith and courage. During the five years of President Foss' administration the current expenses were provided for, the debt was paid, and nearly two hundred and fifty thousand dollars added to the endowment. About forty thousand dollars of this amount was contributed by the alumni of the college, as an Alumni Centennial Fund. The largest contributor to the new endowment was George I. Seney, who then began his series of princely gifts. But the administration of President Foss was not distinguished solely by this great financial achievement. A character so noble, a kindness and courtesy so unvarying, an enthusiasm for goodness so inspiring, a piety so high and pure, could not fail to produce a profound effect. His influence upon the body of students was in some respects like that of Willbur Fisk, whose saintly memory glorifies the early history of the college.

Greatly to the regret of the members and friends of the college, Dr. Foss resigned the presidency in 1880, having been elected one of the Bishops of the Methodist Episcopal Church. Once more the choice fell upon an alumnus of the institution, John W. Beach, D.D., being elected. During his administration additional gifts to the endowment funds were received from Mr. Seney, until his contributions amounted in

the aggregate to four hundred and fifty thousand dollars—a larger sum than the college has received from any other one benefactor.

The retirement of Dr. Beach from the presidency in 1887 was followed by an interregnum of two years, during which the college was ably served by Prof. John M. Van Vleck, LL.D., as Acting President. In 1889, Bradford P. Raymond, LL.D., President of Lawrence University, was elected President of Wesleyan, and he still retains the position. His administration has been signalized by the gift of \$275,000 from Daniel Ayers, LL.D., by the legacy of Daniel B. Fayerweather (from which probably about \$250,000 will accrue to the college), by the erection of a new gymnasium, by a very considerable increase in the number of students, by a great advance in the number of instructors and in the breadth of the curriculum, and by a considerable development of graduate study.

As implied in its history, Wesleyan belongs to the class of denominational colleges. Its policy has never been narrowly sectarian. Men of six different denominations are at present included in its Faculty, and a still wider range of religious affiliations has been represented among its students. While never sectarian, its spirit has always been thoroughly Christian. With few exceptions, its instructors have been men of earnest Christian character and positive Christian influence. In all its history, daily prayers have been held in the chapel, at which attendance has been required. Attendance at church has been required on Sunday. At some times preaching has been held in the chapel; but that is not the case at present, and has not been the case during most of the history of the college. There has never been a college church. In recent years Wesleyan has had an active Young Men's Christian Association; and prayer-meetings and other informal religious services, which were formerly, for the most part, under the control of the Faculty, have now passed in large measure under the direction of the Association and its committees. A change of this sort, from what may be called a religious establishment to a more free and spontaneous religious activity on the part of the students, has doubtless taken place in greater or less degree in many of the colleges. The effect of the change, though not unmixed with evil, is probably in the main good. At present a decided majority of the students of Wesleyan University are church-members, and the same has probably been true at all periods of its history.

By the charter of 1831, the custody of the property was vested in a Board of Trustees, whose members held office by a permanent tenure, and whose vacancies were filled by the board itself; but the election of members of the Faculty, and the general government of the college, were committed to a Joint Board of Trustees and Visitors—the latter class of officers being the annually appointed representatives of the Conferences of the Methodist Episcopal Church in New England, eastern New York, northern New Jersey, and north-eastern Pennsylvania. By the charter of 1870, the cumbersome machinery of two boards was abolished; the powers of both being conferred upon a single Board of Trustees, part of whose members are elected by the board itself, part by the Conferences of the Methodist Episcopal Church which are named in the charter as "Patronizing Conferences," and part by the alumni of the college. The trustees (except the president, who is a member of the board *ex officio*) hold office for a term of five years. Since 1870 the charter has received only minor amendments. One of these provides for a vote of absent alumni by correspondence in the election of trustees.

The name of the institution expressed the spirit and purpose of its founders. The name "Wesleyan" was the natural expression of the zeal and loyalty and aspiration of men who felt that, in the foundation of the institution, the church

which they loved, and in which they thoroughly believed, was destined to enter upon a new phase of life, and to develop renewed power for the spreading of "scriptural holiness" through the land. The name "University" declared the purpose of making the new institution, not simply a college in the strict sense, but a cluster of professional schools. In accordance with this intention, we find mentioned in some of the early Catalogues professorships of Biblical literature, ecclesiastical history, law, civil engineering, and normal instruction; though the first of these professorships appears never to have been filled, and the others were of short duration. At a later date both halves of the name came to be regarded by many of the alumni and friends of the college as unfortunate. As Methodism gained a position in which the fact of the existence of a Methodist college ceased to be regarded as an extraordinary phenomenon, as denominational zeal more and more gave place in the minds of all Christians to zeal for a common Christianity, as the alumni came to enter in increasing proportion other professions than the ministry, it came to be felt that an adjective of denominational significance was an inappropriate name for a college of liberal arts. As the intention of establishing a group of professional schools came to be definitively abandoned, and the institution accepted as its sole function the teaching of science, philosophy, and literature, in the spirit and with the aim of general culture, the word "University" seemed to imply somewhat of untruth. The desire for a change of name reached its maximum intensity among the alumni who were graduated in the decades between 1860 and 1880. Later there came a decided ebb in the tide. The men who had given the Wesleyan yell in triumph on the football field, with the new *esprit de corps* which inter-collegiate athletics had developed, came to feel a loyal pride in the name, in which all its theological connotation was forgotten. Moreover, the development of graduate study, which has characterized the later years of the institution, seems to render the name "University" somewhat appropriate, though in a different sense from that originally intended. A canvass of the alumni, made in the year 1891, revealed—first, that a small majority of the alumni who responded to the letter of inquiry, considered the name objectionable; secondly, that the tide of feeling and opinion, as indicated by the comparison of the votes of alumni of different ages, had already begun to ebb; thirdly, that there was no name on which any hearty union of the opponents of the old name could be effected. The general conclusion was that the name, whether wisely chosen or not, must be accepted as a finality.

Wesleyan ranks among the small colleges; and, in its educational opportunities, admits the limitations, and claims the real advantages, which belong to a small college. It opened in 1831 with a faculty of five members and with forty-eight students. The number of the faculty reached ten for the first time in 1839, twenty in 1880, and thirty in 1893. The number of students reached one hundred for the first time in 1835, two hundred in 1888, and three hundred in 1895. For the last nine years the gain in number of students has been continuous. The Catalogue for 1896-7 affords the following statistics of the personnel of the institution:—the president, fourteen professors, eleven associate professors and other instructors in charge of classes, eight assistants and other officers not in charge of classes, eleven graduate students,* sixty seniors, sixty-three juniors, seventy-nine sophomores, ninety freshmen, four special students.

The property of the college, according to the Treasurer's Report for 1896, is as follows:—college grounds and buildings, \$531,300; library, museum, scientific apparatus, etc., \$137,235; endowment funds, \$1,166,798.

* Four of these are counted also as assistants.

The campus is beautifully situated on a terrace somewhat more than a hundred and fifty feet above the river, and contains about fourteen acres. The five principal buildings are of sandstone, from the Portland quarries just across the river, and stand in line, facing the beautiful High Street, which runs along the east side of the campus. At the north end of the line are the two buildings which are the legacy received from the old Academy, and which now bear the names, North College and South College. The former is the principal dormitory, and has within a few years been completely renovated in its interior through the liberality of J. E. Andrus, of the class of 1862. The latter is chiefly occupied by class-rooms. Then follow in succession the Memorial Chapel, the Library (Rich Hall), and the Orange Judd Hall of Natural Science. Other buildings, among which are Observatory Hall, the Electrical Laboratory, the boiler house and machine shop, and the new Fayerweather Gymnasium, stand in the rear. Still farther to the west lie the athletic fields.

The various scientific departments are pretty well provided with the necessary means of illustration and investigation. The equatorial telescope, by Alvan Clark & Sons, is one of the telescopes of good reputation among the observatories of the country. The other astronomical apparatus is sufficient to give the student a thorough training in most kinds of astronomical observation. The physical laboratory is supplied not only with apparatus required for the ordinary lecture-room experiments, but with apparatus for precise measurement of physical quantities, affording means of training in physical investigation. The immense advance in electrical science, characteristic of the last quarter-century, has been recognized by the establishment of a special electrical laboratory. The chemical laboratory was the first of the scientific laboratories to be established. Besides doing its share in the work of instruction, the chemical laboratory of Wesleyan is well known as a place in which important investigations on food and nutrition have been carried on under the auspices of the government. The museum affords abundant material for the study of geology, mineralogy, and systematic botany and zoology. It is especially rich in the minerals of the famous region in which Middletown is situated. The mineralogical department is supplied with apparatus for the study of optical mineralogy and petrography. The biological laboratory is well supplied with microscopes, microtomes, and other apparatus. A beginning has been made in the provision of apparatus for experimental study of physiology and physiological psychology. A bacteriological laboratory has been established.

The library includes about forty-five thousand volumes, and the income of a special fund of about \$20,000 is applied to its increase. The greatest need of the institution at present is probably the need of a library more nearly adequate for the varied lines of investigation. At the date of the present writing, a committee of the alumni are raising a subscription among their associates for the increase of the library fund. It is confidently expected that the fund will be raised to \$50,000 before the close of the college year, 1896-97.

It is an interesting fact that some modern ideas, in regard to the curriculum of college study, were anticipated, in a rather crude way, in the plans adopted by President Fisk, in the early days of Wesleyan University. There was no division into four classes, the students being classified into sections in each department solely with reference to their advancement in that department. Partial courses were encouraged, a student being entitled, at any time, to be dismissed with a diploma, according to his attainments. The degree of Bachelor of Arts was given to any one who had completed the course, without regard to the time he had been in residence. This anticipation of the "new education" was certainly premature; and a scheme

so very loose seems quite unsuitable for the permanent administration of a college. Naturally, therefore, the institution quickly subsided into what was then the general routine of American colleges. As early as 1836 we find the students classified as seniors, juniors, sophomores, and freshmen; and in 1841 the studies are definitely distributed to the four years of the curriculum. The plan of elective studies does not appear in the catalogue, in any definite form, until 1850, when we find the provision that French, German, and Hebrew may be substituted for certain studies of the regular course. The plan of a fixed curriculum, with very little election, remained essentially unchanged till 1869, when a considerable addition was made to the list of electives. The year 1873 was marked by a radical change in the curriculum, in which the plan of a fixed curriculum gave place to the elective system. The changes in the curriculum since 1873, have been in the same direction as the great change made in that year, the number of required studies having been somewhat diminished, and the number of electives having been greatly increased.

In the very beginning of the college President Fisk recognized the truth which is now generally acknowledged, that the study of the ancient languages is not *the* means, but only *a* means, of culture, and that there may be a truly liberal education in which that study is not included. Hence, from the early days of the college, there has been a scientific course, as well as a classical course. Until 1873, however, the scientific course was only three years long.

Since 1873 there have been three parallel courses, each four years in length, called respectively the Classical, the Latin-scientific, and the Scientific Course, and leading respectively to the degrees of Bachelor of Arts, Bachelor of Philosophy, and Bachelor of Science. Although these courses are all of the same length, the three degrees have not been recognized as exactly equal, since there has been a considerable difference in the amount of the requirements for admission, the preparatory course for the Classical Course being the longest, and that for the Scientific Course being the shortest. The difference is less now than when the system was first inaugurated, considerable addition having been made to the requirements for the Latin-scientific and Scientific Courses; and further additions will be made in the next few years, so that in 1901 the requirements for all the courses will be of equal severity. The three baccalaureate degrees (if retained) will then be of equal value, as representing educational courses equal in length and strenuousness.

In each of the three courses, certain studies are required (mainly in the early years), while the remainder (including most of the work of the last two years) are elective. Certain studies which are elective in the Classical Course are required in the other courses. It is believed that a truly liberal education involves the doing of a reasonable amount of work in each of the great departments of study which have been the field of the intellectual activity of the race. No one, accordingly, receives the Baccalaureate degree, who has not accomplished some work in each of the departments—Mathematics, Natural Science, Languages, Literature, Philosophy, Historical and Political Science. The theoretical justification of the elective system lies in the principle that, while a liberal education must include some work in each great department of thought, there is no one proportion between those departments, and no one selection of studies within the limits of each department, which can be pronounced absolutely the best without regard to the talents, tastes, professional plans, and pecuniary circumstances of the student. The practical justification of the elective system, in the experience of Wesleyan University, has been that a much larger proportion of the rank and file of a class become thoroughly interested, at least in some part of the curriculum, and lose the sense of task-work in the acquisition of a genuine scholarly spirit.

It will, perhaps, be worth while to give a more detailed analysis of the Classical Course, which is the one taken by a large majority of the students. Each student is required to arrange his electives so as to take not less than fourteen nor more than seventeen class exercises per week, or work reckoned as the equivalent thereof (exclusive of exercises in composition and oratory, which are required of each class). The studies of the course must be, therefore, in the aggregate, the equivalent of between fifty-six and sixty-eight exercises per week for one year (exclusive of the exercises in composition and oratory). The required studies in the Classical Course, estimated, as above indicated, in numbers of exercises per week for one year (according to the announcement of courses for the year 1896-7), are as follows: Latin, four; Greek, four; Modern Languages, three; English Language and Literature, two and a half; History, Economics, and Social Science, one and a half; Philosophy (including Ethics) and Christian Evidences, four and a half; Mathematics and Astronomy, four; Physics, two and two-thirds; Chemistry, one and five-sixths. The elective courses offered to undergraduates, estimated in the same manner, may be summed up as follows: Latin, eighteen; Greek, twenty; Modern Languages, twenty-three; English Language and Literature, nineteen; History, Economics, and Social Science, eighteen; Philosophy (including Ethics) and Christian Evidences, thirteen; Mathematics and Astronomy, twenty-six; Physics, twenty-five; Chemistry, twenty-two; Geology, ten; Biology, fourteen.

While it is obvious that the elective system allows a student in college to arrange his course of study with some reference to his professional plans, and while it is true that certain choices of electives in college may permit a student to shorten somewhat the time which would otherwise be required in the professional school, the spirit of the instruction in Wesleyan University is not at all that of the professional school, but strictly that of the college of liberal arts. No studies are included in the curriculum which may not be legitimately taken as a means of general culture; and the aim of the teaching is not to make clergymen, lawyers, physicians, or engineers, but to make well-educated men—men whose intellectual horizon has been widened, and who have acquired a vital sympathy with the world's intellectual life, by their studies in science, philosophy, and literature.

Wesleyan is a teaching institution. It has no sympathy with the notion that the ideal college would be an institution with libraries and laboratories, but no students, and that the best practicable approximation to this ideal condition is attained when professors give a minimum amount of time to perfunctory reading of lectures, and throw their whole energy into scientific and literary work. It is nevertheless true that the best teaching can only be done by men who have the spirit of the investigator, and the best teaching tends to excite the spirit of the investigator in the student. In the laboratories of Wesleyan University, graduate, and in some cases even undergraduate, students have had the opportunity to assist in investigations which have won even a European reputation.

The most characteristic feature in modern educational work is the endeavor to give the student a first-hand, rather than a second-hand, acquaintance with the various subjects of study. He is to learn things themselves, and not merely learn what somebody has said about them. This modern idea of education is thoroughly appreciated in the work of Wesleyan University. In the scientific studies, this idea finds its exemplification in laboratory work in physics, chemistry, and biology, and field work in geology. But the idea is just as truly carried out in the teaching of the humanities as in that of the sciences. The students in English literature study and criticise for themselves the works of the great authors, instead of merely learning

from manuals the dates of their birth and death, and the titles of their works. The methods of the German "seminar" are applied to a considerable extent in the advanced elective classes in most departments.

The advance in the scholarly spirit of the students, under the influence of the elective system and the improved methods of instruction, is illustrated by the increased development of graduate study. Prior to 1877, only an occasional name of a resident graduate appears in the catalogue; but since that date a greater or less number of graduate students have been enrolled every year. At first no special courses were provided for graduates, the comparatively small number of graduate students giving their attention to advanced elective courses which they had not been able to take during their undergraduate career, or to courses of reading or laboratory work prescribed for them individually by the respective professors. Since 1890, courses have been announced in most departments especially for graduates, though in some cases these courses have also been open, under certain restrictions, to undergraduates. Since 1891 the Master's degree has been given on examination, instead of in course, as formerly.

But it is not only the presence of graduate students in the college itself, that illustrates the scholarly spirit kindled during the undergraduate years. In recent years, the younger alumni of Wesleyan have been found in increasing numbers pursuing graduate studies in the great universities of this country and of Europe. The latest supplement to the *Alumni Record*, published in 1895, shows 34 alumni engaged in graduate studies, not counting the 24 who were in schools of theology, law, and medicine. Recently, a Wesleyan Alumni Club held a meeting three successive years in Berlin during the Christmas holidays, the number of alumni present being on one occasion eleven. Of course, it was only an accident that so large a number could be gathered together at one time; but the scholarly spirit that sends the young alumni to the great German universities, and the *esprit de corps* which keeps alive their interest in each other, are not accidents.

In the early days of Wesleyan, discipline was tremendously paternal. Members of the Faculty made periodical tours of observation, and marked demerits for all students absent from their rooms in study hours. All that is changed; and yet the Faculty of Wesleyan are by no means prepared to adopt the German notion that they have discharged their whole duty to the students when they have read their lectures. They recognize a responsibility in regard to the character of the students. The relations between teacher and student are relations of mutual confidence and sympathy. Instances of serious disorder are very rare, and nothing approaching a college rebellion has been known for many years. There is a Committee of Conference, composed of representatives both of the Faculty and of the students, in which various matters of interest to the college are discussed. This committee has neither legislative nor judicial powers; but it affords an opportunity for securing a better understanding between Faculty and students, and the decisions of the Faculty are often influenced by the discussions in the Committee of Conference. The vice of dishonesty in examinations, so sadly prevalent in most American colleges, has been taken in hand by the students themselves. Classes under examination are left to themselves, the instructor being absent from the room a considerable part of the time. Students suspected of cheating are tried by a committee of the students, and the verdict is reported to the Faculty. It is believed that the influence of the "honor system" has been decidedly salutary. There is still undoubtedly some cheating, but it is certain that the amount has been greatly diminished.

The valedictory and salutatory, once the coveted prizes of the college course,

were abolished in the general administrative reform of 1873. The system of honors then adopted has undergone some modification in more recent years. By the regulations adopted in 1896 there are to be two grades of honor in general scholarship, and two grades of honor in special departments. The candidate for honors of the latter class must take extra work in his chosen department, outside of the regular curriculum. The degree will be given *summa cum laude* to a student who takes honors of first grade, both in general scholarship and in one or more departments; *magna cum laude* to a student who takes an honor of first grade, either in general scholarship or in one or more departments; *cum laude* to a student who takes an honor of second grade. The mode of keeping the record and awarding the honors is such that an ordinal arrangement of the students as first, second, third, etc., in the class will be impossible. Under this arrangement it is believed that the necessary evil of a marking-system will be reduced to a minimum.

A very important factor in the social life of the college is found in the "Greek-letter Societies." There are seven of these among the male students of the college, two of them being purely local societies, while the others are chapters of inter-collegiate fraternities. In all these societies members are admitted in freshman year, and retain their membership through the course. It is believed that in each of these societies a considerable amount of genuine literary work is included in the program of the meetings. All the societies are ambitious for scholarly and literary superiority, and their influence upon their members is certainly, for the most part, salutary. Each of the societies has a club-house, owned or rented by a corporation, consisting of alumni members of the society. The club-house includes not only the private room in which the meetings of the society are held, but arrangements for the boarding of such of the members as do not prefer to provide for themselves elsewhere. As a matter of fact, the great majority of the students board in these club-houses. In most of them there are also some rooms for lodgers, which are rented to some of the members of the respective societies. During Commencement week receptions are held in the various club-houses; and, for the alumni and other visiting friends, the tour of the club-houses on the afternoon of the receptions is the great social event of the week. The club-houses, and the social life connected with them, are among the civilizing and refining influences of the college. Class societies have never been an important factor in the life of the college, though several such societies are in existence.

The record of Wesleyan in athletics has been for a small college rather remarkable. The University Crew stood second in the intercollegiate regattas of 1873 and 1874, and its average time in the three regattas, 1873-5, was less than that of any other college. More recently, attention has been given to foot-ball, base-ball, and track athletics. In foot-ball, Wesleyan has at least once beaten every prominent competitor except Yale and Princeton; and, in base-ball, Wesleyan has once beaten Yale.

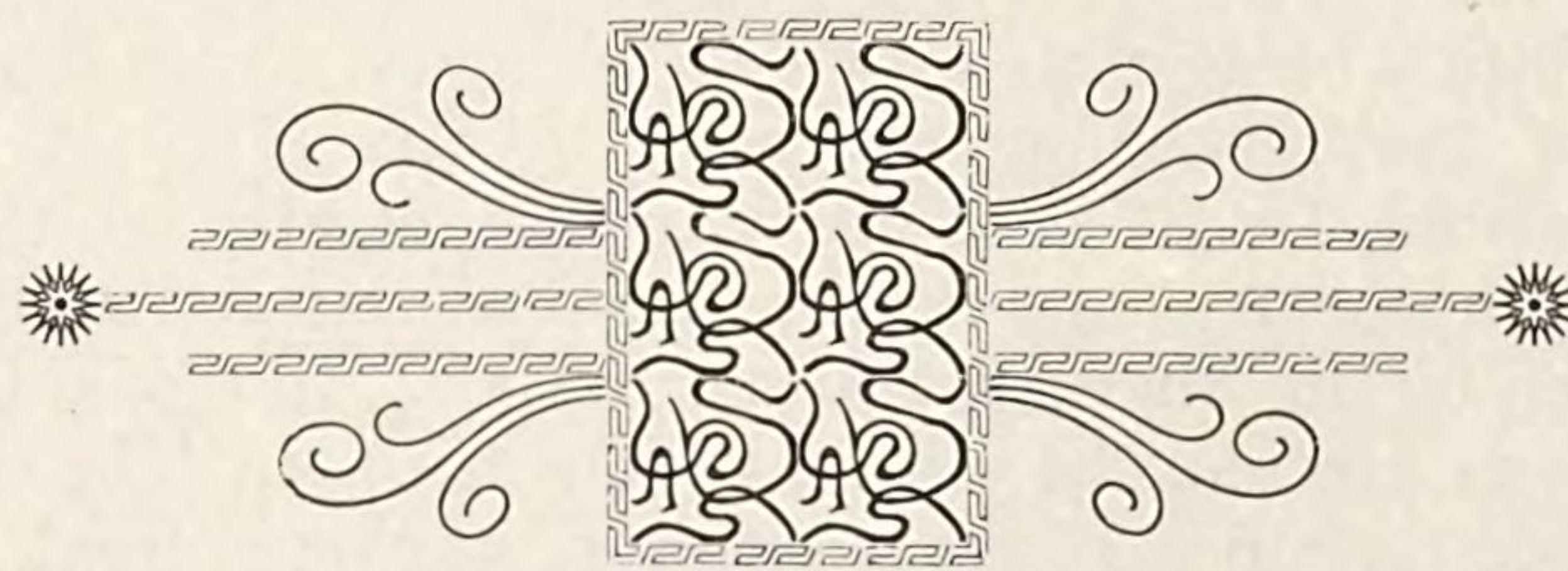
In 1872 the policy of co-education was adopted in Wesleyan University. The initiative had been taken a year earlier by a vote of the Alumni Association in favor of that policy. Four women entered in 1872, all of whom were graduated with honor in 1876. The number of women admitted was small until within the present decade. In the year 1896-7, the number of women in the college was sixty-three. As might naturally be expected, the average scholarship of the women has been somewhat superior to that of the men, though none of the women have shown themselves the equals of the very ablest men. No injury has come to the intellectual or moral tone of the institution from the admission of women; and no serious

embarrassment has been occasioned in the administration. It would be out of place here to enter upon any extended discussion of co-education. Recent educational movements seem to indicate that co-education is the policy of the future—that within a few years most of the universities of this country and of Europe will open their doors to women. And there is much reason to believe that, for both young men and young women, association in the honorable and friendly rivalry of scholarly work is more wholesome than monastic seclusion. It is undoubtedly true that for many young women the somewhat different curriculum existing in most of the women's colleges, with its larger recognition of music and other accomplishments, is especially adapted; but it is no less true that for some women (and especially for those who are fitting themselves for the higher grades of teaching) the best education is that which is afforded by the curriculum, the apparatus, the associations, and the intellectual atmosphere of the typical college.

The total number of graduates, at the date of publication of the Supplement to the *Alumni Record* in 1895, was 1877, of which 1393 were then living. The numbers in the four leading intellectual professions were as follows: Clergymen, 347;* teachers, 266; lawyers, 195; physicians, 74. Eight of the alumni of Wesleyan have been Bishops of the Methodist Episcopal Church. Most marked has been the influence of Wesleyan University in educational work, and especially in the development of the educational institutions under the patronage of the Methodist Episcopal Church. In 1895, 83 alumni of Wesleyan University were members of faculties of colleges and professional schools. One hundred and thirty-three of the alumni served in the Federal Army during the War of the Rebellion, and thirteen fought for the lost cause.

A small college like Wesleyan cannot point to as many names of national, and more than national reputation, as adorn the rolls of the larger and older institutions. Such men are rare exceptions among the alumni of any college. But, in regard to the average character of the work of the alumni, Wesleyan shrinks not from comparison with any other institution. Its *Alumni Record* is a record of noble, faithful work. Very few indeed of its alumni have failed to do something worth doing for themselves and for mankind.

* This number includes not all who have been ordained, but only those in the pastorate or in positions closely allied thereto.



CHAPTER LXVIII.

BERKELEY DIVINITY SCHOOL *—THE MYSTIC VALLEY INSTITUTE—ST. MARGARET'S
SCHOOL FOR GIRLS—THE CONNECTICUT SCHOOL FOR BOYS—MR. TAFT'S
SCHOOL—MISS CATHARINE AIKEN'S SCHOOL FOR YOUNG
LADIES—WOODSIDE SEMINARY FOR YOUNG LADIES
—MRS. CADY'S SCHOOL FOR GIRLS.



THE BERKELEY DIVINITY SCHOOL owes its existence, and its growth and prosperity for more than forty years, to its venerable and beloved head, the Rt. Rev. John Williams, D.D., LL.D., Bishop of Connecticut, and presiding bishop of the Protestant Episcopal Church in the United States. Bishop Williams is still (1896) the active head, as president of the trustees and dean of the faculty, and bears his full share in the labor of instruction.

Shortly after becoming president of Trinity College, Hartford, namely, in the autumn of 1849, Dr. Williams organized a theological department in the college, being assisted in the instruction by the Rev. Dr. T. W. Coit, the Rev. A. C. Coxe, and the Rev. E. A. Washburn. The work thus begun was put upon an independent basis, and brought into closer relations with the diocese of Connecticut, by receiving a charter from the General Assembly of the state in 1854, providing for eleven trustees, the vacancies in whose number should be filled by the convention of the diocese; and by its removal to Middletown, encouraged by generous help from citizens of that town, where it still remains. Dr. Williams had in the meantime been chosen assistant bishop of Connecticut, and had resigned the presidency of Trinity College.

In Middletown the school received as a gift from Mr. E. S. Hall, property in a favorable location on Main street, including a commodious house, formerly the residence of the Rev. S. F. Jarvis, D. D. This has been occupied ever since as the bishop's house and the main building of the school. A "wing-building" of two stories was built in 1860, and the "Wright house" on adjoining property, was bought in 1868, accommodation being thus provided for about thirty students. In 1861 a beautiful chapel of Portland stone was built by Mrs. Mary W. Alsop Mütter, in memory of her husband, Dr. T. D. Mütter, and consecrated as the "Chapel of St. Luke, the Beloved Physician;" and in this daily morning and evening service is said. The stone was given by the Shaler & Hall Quarry Co. In 1896 a building for library and lecture-rooms was erected, the gift of various friends. The collection of books numbers over 22,000 volumes, about two-thirds purchased from the library of the late Dr. Coit, professor of Church History until his death in 1885.

Among the benefactors of the school, besides Mr. Hall, and Mrs. Mütter and others of the Alsop family, may be mentioned Miss Margaret Belden, Mrs. F. A. Russell, and Mr. J. E. Sheffield. The total endowment has been about \$400,000.

The professors and instructors in the school have been as follows: Rt. Rev. John

* By J. H. Barbour.

Williams, D.D., LL.D., 1854-; Rev. Thomas W. Coit, D.D., 1854-85; Rev. Edwin Harwood, D.D., 1856-73; Rev. F. J. Goodwin, D.D., 1856-72; Rev. A. N. Littlejohn, D.D.,* 1856-69; Rev. E. A. Washburn, D.D., 1856-69; Rev. F. T. Russell, D.D., 1856-; Rev. T. F. Davies,† 1856-61; Rev. Samuel Fuller, D.D., 1860-95; Rev. W. H. Vibbert, 1861-73; Rev. Henry de Koven, D.D., 1863-69; Rev. H. A. Yardley, 1865-82; Rev. Walter Mitchell, 1865-72; Rev. Frederic Gardiner, D.D., 1868-89; Rev. John Binney, D.D., 1874-; Rev. W. A. Johnson, 1883-; Rev. W. F. Nichols,‡ 1885-87; Rev. Sylvester Clarke, D.D., 1887-; Rev. J. H. Barbour, 1889-; Rev. Joseph Hooper, 1894. Of the present members of the faculty, instruction is given by Bishop Williams in Doctrinal Theology and the Prayer Book; by Dr. Binney, in Hebrew and the Old Testament; by Prof. Johnson, in Church History; by Dr. Clarke, in Evidences and Homiletics; by Prof. Barbour, in the New Testament; and by Mr. Hooper, in American Church History.

Of the Episcopal clergy who are alumni of the school, three hundred and forty-one are living, and fifty-two deceased. Although it is especially the theological seminary of the diocese of Connecticut, only about ninety of the alumni now belong to Connecticut, the remaining two hundred and fifty being widely scattered throughout the Union, as well as in foreign lands. Among the number are nine of the present bishops of the Episcopal Church, and at least thirteen other graduates are teaching theology in various institutions. The number of students at present (1896) is thirty-five, of whom seventeen are candidates for orders from other dioceses.

THE MYSTIC VALLEY INSTITUTE, Mystic, Conn., was organized in September, 1868, by Prof. John Knight Mucklyn, A.M., LL.D. Like the famous old academies of Connecticut, it was intended to furnish just that instruction which students needed. A large number of students was neither expected nor desired, but each student was taught separately if necessary, and was advanced as rapidly as possible. The slow student was compelled to learn, and was not discouraged by competition with higher classmates. The bright student was not retarded by other pupils, but finished his work as rapidly as he could. No certain time has been required for graduation. As soon as the student is prepared for college in the full course, and has completed the required work in the special course, he is recommended for graduation, whether he has been in the school one year or four years. No student recommended by Professor Mucklyn has ever been conditioned on entering college. The graduates have entered twenty-one different colleges. The school is not sectarian, and receives no more help from one church than from another. The teachers are members of various churches.

In 1880 the legislature of Connecticut, by special act, granted a charter to the school, the chairman of the House committee remarking: "The school is all right if Prof. Mucklyn has charge of it." The members of the corporation are members of six different church denominations.

Professor Mucklyn was an officer in the civil war and has testimonials from every commander under whom he served, including General Philip Sheridan. He taught in public schools for years before establishing this academy, and it is the result of his experience in city and village school-work. Prof. Mucklyn is a member of the Philadelphia Commandery of the Loyal Legion, of Williams Post G. A. R., of the State Sunday-School Committee. He is an officer in the State Board of Trade and is a popular preacher and lecturer. He has been a newspaper writer for thirty years. His two sons are physicians. Much attention has been given in this

* Now Bishop of Long Island. † Now Bishop of Michigan. ‡ Now Bishop of California.

school to health, and the physicians' bills for the school have been two dollars for twenty-seven years. Manual training and the business course have been given a prominent place. The school owns twenty-five acres of land on the seashore and one hundred acres of woodland.

Many students of limited means have been able to earn a large part of their school expenses without seriously interfering with their school work. Many of these students now occupy good positions in professional and business life. The best of testimonials can be furnished from the alumni of the school, both gentlemen and ladies.

Mystic is a charming town situated on the Mystic River. It offers every advantage of location. Many artists have located here during the past few years, and many summer boarders find temporary homes here. No town offers more lovely drives, more picturesque scenery, or more refined, intelligent citizens.

ST. MARGARET'S SCHOOL FOR GIRLS is one of Waterbury's noted institutions. The school was presented to the Episcopal diocese of Connecticut for a diocesan school, by the citizens of Waterbury, and a charter was obtained June 8, 1875. There is an average attendance at the school of 150. The Rev. Francis T. Russell is rector and Miss Mary R. Hillard, principal. The entire management of the school is in the hands of Miss Hillard, and it has been very successful under her guidance. The school received \$80,000 from citizens of Waterbury, and has received various sums from time to time from those interested in its welfare, among the contributors being Miss Cornelia H. Boardman, of New Haven, who gave \$25,000.

THE CONNECTICUT SCHOOL FOR BOYS, better known perhaps as "The State Reform School," which occupies a sightly spot in the heart of Meriden, is one of the important state institutions. It was authorized by the General Assembly, in 1851, and an appropriation of \$10,000 was made conditionally. A year later the present site was selected, and in 1853 the first building was erected, and in 1854 the first boys were received in the institution. The school now comprises seven buildings, not including the spacious barns and other out-buildings, and contains about 500 inmates. Rev. George L. Coburn, its present superintendent, aided by an efficient corps of instructors, is doing much reformatory work. The branches of study taught are the same as in the public schools, and in addition the following trades: Caning chairs, shoemaking, printing, painting, carpentering, tailoring, masonry and telegraphy.

MR. TAFT'S SCHOOL was established in 1890 at Pelham Manor, N. Y., by Mr. Horace D. Taft, a graduate of Yale College in the class of 1883, and for some years a tutor of Latin in that institution. The school began with a staff of three teachers and with ten boarding-scholars and seven day-scholars.

In 1893 Mr. Taft moved the school to Watertown, Conn., where the conditions have proved very favorable and the school has flourished exceedingly. There is now a staff of six teachers, while the boarding-scholars number forty-three and the day-scholars sixteen.

The object of the school, as set forth in the school catalogue for 1896, is "to give boys a thorough preparation for the best colleges and scientific schools, and to make them strong, healthy, and manly men." The school prepares for all colleges and scientific schools, but most of the boys go to Yale. The course of study covers five years, and no boy is admitted who is less than twelve years of age.

Mr. Taft was fortunate in securing for his school the Warren House, which for nearly thirty years was the most famous hotel in this part of the state and which has proved to be a most admirable building for the purposes of the school.

The adaptation of the building for these purposes required several changes. A gymnasium and locker-room completed the school-equipment. The school has the use of an admirable athletic field in the Watertown fair grounds. The quiet New England village of Watertown, with its healthful climate, its freedom from all temptation and its opportunities for open air exercise is an ideal place for such a school.

MISS CATHERINE AIKEN'S SCHOOL FOR YOUNG LADIES was established and incorporated in 1855, as the Stamford Female Seminary. The school stands at the head of Bedford Park, at the junction of Prospect and Bedford streets. As a local institution, it has always been regarded with pride by the towns-people. The patrons of this educational institution come from far and near, and over two thousand young ladies have been sent forth, schooled and properly trained for the business of life.

H. U. KING'S SCHOOL FOR BOYS was founded in 1876, and two years later Mr. King erected a building on the present site, Bedford street, which has been enlarged materially to meet the required wants. Mr. King is a graduate of Dartmouth, and his success in fitting young men to enter the large universities has been without a peer. Mr. King is surrounded by a corps of competent instructors, and no young man prepared at this institution has failed in a college entrance examination.

MISS LOUISA LOWE'S SCHOOL FOR YOUNG LADIES, located on Willow street, has been crowned with success since its inauguration, and is one of the most popular educational institutions in the city. Scores of young ladies, who have advanced to higher stations in life, owe allegiance to this institution for their training.

WOODSIDE SEMINARY FOR YOUNG LADIES is the outgrowth of a boarding-school started about twenty-five years ago for children and young ladies.

In 1890, Lakeview Hall, a school located in Litchfield, Conn., was brought to Hartford by the present principal, and incorporated with the Woodside School by her, under the name of the Woodside Seminary.

Its present object is to continue the education of young ladies who have graduated from high or private schools, and wish to continue their studies, yet do not care to go to college, who come to take the senior course as laid out in the curriculum of the seminary. Younger girls, from fourteen years upwards, are received for intermediate or junior studies.

The school has a fine reputation in its teachers' equipment and its situation, which every year proves more desirable. The school crest bears the legend: "Willing, then able for God." *Volo, Valeo, pro Deo.*

MRS. CADY'S SCHOOL FOR GIRLS, 56 Hillhouse avenue, New Haven, is an institution, in an educational point of view, that must not be lost sight of. This school was opened in 1870, and has now completed its twenty-sixth year. Its location is the finest the city affords. The grounds are large, shaded by giant old elms, and supplied with tennis and croquet courts. Mrs. Sarah L. Cady is the principal, with Miss Cornelia E. Cady as assistant. These ladies are also most ably assisted by a full corps of accomplished instructors, graduates of Smith, Vassar and Wellesley, and by native teachers in French and German. Special attention is given to the study of English, history, English literature, art and art literature, and music. The work of college preparation forms an important branch of this institution. The system has been examined by committees from Smith, Vassar and Wellesley, and, as a result, the school is allowed to enter pupils on certificate in the three colleges named. The teachers aim to prepare girls in accordance with the highest standard of admission, and use, from time to time, the tests given in Yale, Cornell and Harvard. The school is both boarding and day school, and has a large patronage. Mrs. Cady's patrons and references are among the leading and influential men of the country.

CHAPTER LXIX.

THE ANCIENT MARITIME INTERESTS OF NEW HAVEN.

BY THOMAS RUTHERFORD TROWBRIDGE.

INTRODUCTION.

F all nations whose colonies have been established in foreign lands, the British is justly pre-eminent. This is owing, in the first place, to the daring and adventurous spirit which has characterized the English seamen ever since the days of Cabot and of Frobisher; and, in the second place, to that peculiar talent which enables the English colonist to adapt himself to the climates, and other conditions of life, in any country to which he migrates. Save the two ill-starred colonies of Drake and of Raleigh, all those that Englishmen have founded are prosperous; and they have most efficiently contributed toward creating the present greatness of England. These fruits of English courage and enterprise give intimations that the Anglo-Saxon race, at no remote day, will become dominant in the world. The prospect imparts a feeling of pride in the consciousness that we ourselves belong to this noble race, with whose destinies our own are inseparably associated; for the different parts of the race, though spreading from sea to sea, and established on every continent of the globe, are sprung from the same stock, and must infallibly share in its future power and glory.

For nearly one hundred years previous to the first permanent settlement of Englishmen in America, Spain and Portugal had successfully founded their respective colonies on both sides of the American continent, extending on the western, or Spanish side, through sixty-six degrees of latitude from thirty degrees south to thirty-six degrees north; and for a century the wealth of the New World poured into the coffers of Spain. The dwellers in the Spanish seaport towns had become so accustomed to see the arrivals of the treasure-ships from the South Seas, that "they viewed them," we are told, "with but ordinary interest."

Englishmen, in those days, looked with covetous eyes upon the huge galleons returning to Spain from their weary journeys to the west, and bringing their almost priceless burdens of gold, silver, valuable woods, and other treasures almost unknown to the people of the British Isles. They also knew that the countries beyond the Atlantic were giving to Spain a market for all the fruits of her industry, and affording an outlet for all her surplus population.

The misunderstandings existing at the time between Elizabeth and Philip gave to many reckless English sea-rovers, whereof Drake, Frobisher and Cavendish were fair specimens, a good reason for sailing to the Pacific, and making their predatory visits to the Spanish settlements, which then dotted the American coast, from Valparaiso to the Gulf of California, as well as to waylay and plunder the treasure-ships returning to Spain from the New World.

Many of the staid and upright London merchants were extensively interested in these expeditions, and royalty deemed it right to share largely in the profits. The English people understood that Elizabeth and Dudley freely and generously aided Drake in fitting out his expeditions; and history assures us that the queen commanded him, after his return, to bring the "Pelican" before her palace at Greenwich, that she might see with her own eyes the little vessel, of one hundred tons burden only, in which her bold subject had circumnavigated the globe in search of Spanish gold.*

Cavendish, too, met with an almost regal reception when, after sailing around the world, he anchored his ship, filled with Spanish treasures, at London Bridge, "with his soldiers clad in velvet, and his topsails cloth of gold."

To the chair, made of one of the timbers of the "Pelican," or "Golden Hind," as she was called after Drake made his cruise in her, and deposited in the University Library at Oxford, Cowley addressed these lines:

"To this great ship, which round the globe has run,
And matched in race the chariot of the sun—
This Pythagorean ship (for it may claim
Without presumption so deserved a name,
By knowledge once, and transformation now)—
In her new shape this sacred port allow.
Drake and his ship could not have wished from Fate
A more blest station or more blest estate:
For lo! a seat of endless rest is given
To her in Oxford, and to him in Heaven."

Those were the days in which many a starving moss-trooper gave his life as a penalty for the driving of one of his enemy's sheep across the border; but these English navigators, who had burned villages, robbed churches and scuttled ships, were ennobled and placed in command of the royal frigates.

The early explorers brought home to England the most wonderful tidings from foreign countries. Even their more sober reports were deeply tinged with the romance of the seventeenth century, and were sufficiently exciting to create at once a strong desire in the minds of multitudes of their countrymen "to go out and occupy such delectable lands." As one historian has said: "A few years only were to pass over before the Anglo-Saxon race was to make new nations amidst dense forests and boundless prairies. England had tasted tobacco, and she hoped to find gold. The time for that great work of plantation was not far distant." To the extravagance of the representations of that period witness Raleigh's story of Golden Guiana in his Tract of 1596:

Lopez describeth the court and magnificence of Guaynacapa, auncestor to the Emperour of Guiana, whose very words are these: "All the vessels of his house, table, and kitchin were of gold and silver, and the meanest of silver and copper for strength and hardness of the metal. He had in his wardrobe hollow statues of golde which seemed giants, and the figures in proportion

* For many years this legend was on an old sign-board of the "Queen's Head" tavern in London:

"O Nature! to Old England still
Continue these mistakes;
Still give us for our King such Queens,
And for our Dux such Drakes."

and bignes of all the beastes, birdes, trees and hearbes, that the earth bringeth forth: and of all the fishes that the sea or waters of his kingdome breedeth. . . . Yea and they say, the Ingas had a garden of pleasure in an iland neere Puna, . . . which had all kind of garden hearbes, flowers and trees of gold and silver, an invention and magnificence till then never seene: Besides all this, he had an infinite quantitie of silver and gold unwrought."

Sir William Courteen, the princely merchant of London, who was known as "the lover of the New World," early in the seventeenth century sent his ship to explore the distant Caribees. She returned in safety, and he told his wondering countrymen of "the many fertile isles of that summer sea, where the generous soil returned to its cultivator its two crops yearly, requiring but a tithe of the labor necessary to produce one in Kent, and the work can be done by slaves."

From the coast of sterile, uninviting New England, Captain John Smith wrote to "His High and Hopeful Charles, Prince of Great Britain," of "the surpassing riches that inhabit this coast; how in the fishing a ship with adventure of £2,000 can gain £1,000, and that in six months, too; and that large shippes may be loaded with the richest of Furies."

From Somers' Islands no longer "the still vexed Bermoothes," Sir George Somers writes to his friends in England:

"If you in England will do what is fit for you, as we will, by God's helpe, what is fit for us, we hope shortly to see the day when men shall say, 'Blessed bee God that suffered Sir Thomas Gates and Sir George Somers to be cast away upon these Islands.'"

But intelligence that far exceeded in interest all the foregoing, was brought to England by the expedition, consisting of three small vessels under command of Captain Lancaster, which were sent by some London merchants in 1591 on a trading adventure to India. One of the most important consequences of this expedition was the chartering of "the East India Company." The patent for trading which this company received, was large enough to cover the entire space of land and sea between Cape Horn and the Cape of Good Hope.

About this period, a general desire for colonization began to be manifested in the seaport towns of the lower counties of England, and the merchants of London, the Bristol and Plymouth ship-owners, the weavers of Coventry, the cutlers of Sheffield, and graziers of Kent, as well as all the great trades and guilds of London, were eager to avail themselves of any new market for the produce of their industry, and coveted at least a portion of that commerce which had enriched Spain and was pouring its golden tide into Portugal and Holland. One hundred years after Vasco da Gama had passed the Cape of Good Hope we see the first pioneers of England's colonies doubling the same cape, and holding their adventurous course toward India. That beginning of an empire was sent out by the East India Company, then in the dawn of its existence, having secured its charter but a few days previous to the sailing of the ships.

The colony made a safe landing, and the adventure proved so successful that upon the return of the ships to London, such tidings were brought by them from the colonists, that a vast emigration from England at once began, and so lucrative was the trade that fifty years after the founding of the colony, the stock of the company, from a par value of £100, had risen to £500. And the colony itself, though it gave at first small evidence of its future grandeur, was in after years, through the genius of Clive and Hastings, to become the most populous part of an empire without a peer in the history of the world.

Soon after the founding of the East India colony, a settlement was made on the coast of Guinea; in 1605, at the Barbados; in 1607, at Jamestown; in 1620, at Plymouth; in 1631, at Gambia; in 1632, at Antigua, and in 1637, during the month of June, there arrived at Boston, from London, two large ships, of which one was the "Hector," containing a company of colonists who, from the fact that in April of the ensuing year, 1638, they selected the site of our city for their plantations, are known to history as the New Haven colony.

The colonies which emigrated from England to America were directly or indirectly under the patronage of the numerous merchant companies of London and Bristol, and were generally bonded to the companies or assisted by them. This was the case even with the Separatist colony of Plymouth; however desirous it was to place the ocean between itself and the uncongenial churchmen of England, it was unable to accomplish its desire until a company of London merchants extended its helping hand to the faithful Pilgrims. Under bonds to that company to the amount of nearly £2,000, the "Mayflower" and the "Speedwell" set sail. Thomas Weston, one of the proprietors of the company, journeyed to Plymouth to be sure that the ships were safely off. This company had on board of the "Mayflower" a trading stock of the value of £1,700. The care of the goods was entrusted to a factor whom the merchants sent in the ship, and who was to dispose of their shipment after it should be landed.

The New Haven colony was in this respect unlike most of the others. When the colonists landed at Quinnipiack they were responsible to themselves only, and obliged to pay tribute to no rigorous and exacting company.

However long the list of the colonies planted by the English race, the history of all of them shows that the first settlers were no sooner housed than they manifested the commercial spirit and enterprise natural to the nation. There were sent to England from Plymouth as early as 1621, "stores of beaver and fine fures." A year or two later, there was built at Salem a ship of one hundred and twenty tons, by name the "Desire," and she was loaded with "fures, fish, and boards."*

The year which saw the first colonists land at Barbados saw also a ship sail from the island for London with a cargo of fustic. Jamestown speedily sent tobacco, and in so short a time as two years after the sailing of the earliest ships of the East India Company, many of the products of India were for the first time seen as articles of merchandise in the streets of London.

CHAPTER LXX.

THE ANCIENT MARITIME INTERESTS OF NEW HAVEN—Continued.

THE EARLY COMMERCE OF NEW HAVEN AND ITS DECLINE.



ROBERTSON tells us "that no period in the history of one's own country can be considered as altogether uninteresting. Such transactions as tend to illustrate the progress of its laws and manners merit the utmost attention. Even remote and minute events are objects of a curiosity which, being natural to the human mind, the gratification of it is attended with pleasure."

* The "Desire" was the ship which brought in 1637 the first slaves to New England. The ship which, in July, 1639, arrived at Gravesend, England, in twenty-three days from Salem, made the voyage, allowing for distances, only seven days longer than the passage made by the clipper-ship "Dreadnaught" from New York in 1854.

In accord with this sentiment of the historian, it has been my endeavor to collect such data and facts as will in a measure illustrate the "Ancient Maritime Interests of New Haven."

The men who were in the earlier days of the colony the most eminent, were persons of large estates, who had in England received a commercial education. Mr. Eaton, the honored father of our New Haven Plantation, had not only been a prosperous and respected merchant of the city of London, but, as the representative of Charles I., had resided at the Court of Denmark, and honorably acquitted himself in all the affairs entrusted to him.

It is stated by one historian at least, that Mr. Eaton arrived at Boston in the ship "Arbella," at a date as early as 1630, seven years before the arrival of the "Hector." There came with him in the "Arbella," as fellow-passengers, Sir Richard Saltonstall, John Ven, Esq., and John Winthrop. The latter, in his journal of the voyage, makes no mention of these fellow-passengers save where he incidentally records the fact that "a maid of Sir Richard Saltonstall fell down at the grating by the cook-room."

The "Arbella," which had previously been known as the "Eagle," received her new name in honor of Isaac Johnson's wife, who was styled the Lady Arbella. The ship was one of a large fleet of eleven vessels that contained seven hundred passengers, two hundred and forty cows, and sixty horses, all destined for the plantations in New England. Is it improbable that Mr. Eaton, who was interested in the Massachusetts Bay colony, may have been a passenger, desirous to see the country which was at the time causing so great an emigration from England?

He was better qualified than any other one of the New Haven planters for the important office of governor, and was highly appreciated and honored by the colonists; for he was annually chosen by them to be their governor for twenty consecutive years, an honor bestowed on no other citizen of the colony or commonwealth.

But Mr. Eaton was not the only man of means and estate in the plantation. There were many other men of property and of influence. So important was the company that no efforts were left untried to induce it to remain within the jurisdiction of Massachusetts Bay. Among other inducements presented were offers of land at Charlestown, Watertown, and the entire town of Newbury. No place, however, presented to Mr. Eaton so many advantages for trade and commerce as did Quinnipiack, which he had carefully surveyed soon after his arrival at Boston.

On the last day but one of March, 1638, the New Haven colony, or a portion of it, including Mr. Eaton, sailed from Boston for Quinnipiack, and reached this place about the middle of the following month. They brought with them not only the Bible and the common law, but also *strong* hopes of becoming a powerful and opulent colony, which should rival the New Netherlands at the west, and Boston and Plymouth at the eastward. Unfortunately the name of the vessel which brought the colonists hither is lost to us.

Governor Winthrop's bark, "Blessing of the Bay," frequently passed through Long Island sound to and from New Netherland, and was at Hartford in 1636. The strongest friendship existed between Winthrop and Eaton, and possibly the "Blessing," being a sound-trader was placed at the disposal of himself and his companions, and brought them to New Haven.

Quoting from Hutchinson, it may be said: "Their chief view was trade; and, to be better accommodated, they built on small house-lots near the sea, and fairer and more commodious houses than those in the other colonies. They built vessels for foreign voyages, and set up trading-houses, upon lands which they purchased, at Delaware bay for the sake of beaver."

A word should be said respecting the "Ancient Trading-Posts at Delaware Bay," which were established by the New Haven colonists. A short time after the settlement at Plymouth, urgent invitations were sent to the Puritans by the Virginians to occupy lands at Delaware Bay. None, however, appear to have accepted the offer.

In the autumn of 1638, the year of the settlement of our colony, a company of the colonists (the most prominent of whom was George Lamberton, soon to meet his tragic death) voyaged to Delaware Bay. Their object was to establish trading stations, at which furs could be purchased of the Indians, who annually followed the Delaware and the Susquehanna rivers, from their sources to the ocean. Lamberton's party took with them a Pequot Indian to act as an interpreter. Through his agency they purchased lands of the Indians, who, for the sum of £60, sold them all the lands which extend from Cape May to the mouth of the Delaware river, on the New Jersey side of the bay. At several of the many convenient sites for trade, the colonists established their factories, and made preparations for pursuing a large commerce with the Indian trappers.

In 1641 Captain Lamberton, the owner of the "Cock," which was the first vessel recorded as owned in New Haven, sailed in that vessel for the bay, carrying with him, as adventurers, who were desirous of settling in the new colony, about twenty New Haven colonists. When they reached New York, the orders of the Dutch governor of that colony gave them the choice of turning back and abandoning their voyage, or of promising allegiance to the Dutch, who claimed the lands about the bay as belonging to the Dutch West India Company.

The New Haven men promised all due allegiance should they settle on Dutch territory, and went on their way. Among the company was Capt. Nathaniel Turner, soon to meet the same distressing fate which overtook Lamberton. He had leave given him by the New Haven Court to go down to Delaware, and reside there "for his owne advantage and the publique good in settling the affayres thereof." Not more than two years had passed away, after Captain Turner's arrival, before the Dutch sent two armed vessels, commanded by Capt. Johnsen Van Ilpendam, to drive out the English settlers from the waters of the Delaware.

The Swedes, who claimed the lands on the Delaware side of the bay, were also hostile to the New Haven colonists. They had prejudiced the Indians against them, and had seized Lamberton, imprisoned and fined him.

The New Haven people, though sadly disappointed in their expectations of trade, were not willing to assert their claims to their lands by force of arms. They surrendered their property to the Dutch, who burned their storehouses, but allowed them to carry their goods home to New Haven.

The adventure resulted in great pecuniary loss, one author deeming it not less than *one thousand pounds*, an amount which the colony could ill spare in the gloomy days of 1643.

Although the posts were destroyed, Lamberton and others made subsequent voyages to the bay; but it does not appear that any trade was carried on after the destruction of the stores by the Dutch in 1643. New Haven claimed, until 1664, "divers pieces of land on both sides of the Delaware Bay." At a meeting of the Commissioners of the United Colonies of New England, held in Boston in 1643, Mr. Eaton and Mr. Gregson, the New Haven commissioners, complained of the treatment experienced by Lamberton and his company at the hands of the Swedes and the Dutch, and asked that redress should be required. The New England commissioners delegated Lamberton to proceed to the bay, clothing him with authority to make a

determination of the case with the Swedes; but it would seem that the mission was fruitless.

One of the most striking manifestations of the commercial enterprise of the colony is presented in the vast number of petitions laid before the New Haven court regarding laws and regulations of the commerce of the town. As early as 1639, Lamberton was trading to Virginia, and Goodman Tapp was bringing cattle from the bay. In 1640, a law was passed "forbidding Masters of Ships to throw ballast into the harbour." It was also ordered that "Shipwrights be excused from military duty;" and Brother Leeke received "liberty to draw wine for them that work at the shipp." In 1644 "came Richard Malbon, John Evance and George Lamberton to inform the Courte, that having seriously considered the damages which the towne doth in many wayes suffer from the flattes which hinder vessels from coming neare the towne, they will undertake (upon conditions named) to builde a Wharfe, to which at least Botes may come to discharge their cargoes."

The wharf, which they were authorized to build, stood on the present site of the City Market. The land belonged to William Preston.

It was in 1641 ordered by the Court "that the Comodytes well boughte in England for ready money shall be sold here not above 3*d*. on the shilling for profit and adventure above what they cost with chardges when solde by retayle—when solde by wholesayle lesse profit may suffice. But Commodities of a perishing nature subject to waste and damage fall not under the former rate, yet the rates be so ordered that neither buyer or seller suffer losse."

The same year it was ordered, "whoever shall cut any tree where spruce masts grow, without leave from the Governor, shall pay twenty shillings for every such default."

Laws were also made to regulate the lighterage of goods to and from the vessels at anchor in the harbor, and particular attention was given to the cutting and hewing of timber for ship-building.

In fine, the records of the town in its early days, abound in allusions to its commercial interests, and it is by no means an uninteresting fact, that long before the settlers named their town New Haven, stringent laws to regulate commerce had been enacted by the court.

Trade with foreign countries, as well as with American ports, was pursued soon after the founding of the colony, and vessels were sent to England, the Barbados, the Azores, Massachusetts, Salem, Connecticut, New Netherland, Delaware Bay, Virginia and the Bermudas. Virginia was comparatively an old colony when New Haven was first settled, and with it our town always maintained an extensive trade. In 1639, as before said, Lamberton was regularly sailing to its ports, touching at some of the Delaware Bay stations on the voyage, and so early as 1640, in the godly colony of New Haven, three bad fellows, by name George Spencer, John Proute (not *the* John Proute), and Henry Brasier, endeavored to steal Lamberton's vessel, the "Cock," the evening before she was to sail for Virginia. It was their intention to carry her to Jamestown, but instead of so doing, they underwent a public whipping and ironing.

From the settlement of the colony till 1656, the history of New Haven's maritime interests is but little more than a sad detail of disaster, misadventure and ill-fortune. After the period named it is difficult to discover that New Haven was little else than a colony of discouraged farmers.

The leaders of the colony, men who had lived in the great cities of England, doubtless brought to the plantations, ideas and habits of a nature too prodigal and extravagant for a new country. To quote from Hubbard:

“Though they built some shipping, and sent abroad their provisions into foreign parts, and purchased lands at Delaware, and other places, to set up trading-houses for beaver, yet all would not help; they sank apace, and their stock wasted, so that in five or six years they were very near the bottom; yet being not willing to give over, they did, as it were, gather together all their remaining strength, to the building and loading out one ship for England.”

This ship, known as “The Great Shippe,” has, for nearly two and a-half centuries, been the theme for story and romance. Her burden was from ninety to one hundred and twenty tons. She was built in Rhode Island, and purchased by the “New Haven Merchants’ Company,” who brought her to their town, and, by the united efforts of the colonists, she was loaded for England. She sailed for that country during the cold, tempestuous winter of 1645.

It is a matter of sincere regret that we are ignorant of the name of this New Haven ship. In none of the numerous accounts of her sailing, and of her fancied reappearance, is any mention made of her name. Even in the wills and inventories of the colonists who were interested in the voyage, and who died soon after she sailed, “The Great Shippe” seems to be the only name given.

That the colonists generally (those who were esteemed rich as well as those who were in a less prosperous condition) were interested in the adventure, is evident from the fact that in the appraisement of several estates, mention is made of the amounts in “The Shippe” as £50, £30, £20; and, in each instance, the sum named represented a very large proportion of the inventory.

It should, perhaps, be stated that “The Great Shippe” was outfitted and loaded by “The Company of Merchants of New Haven.” Governor Eaton, Stephen Goodyear and Richard Malbon were directors of this company, and against it suit was brought by the brothers George and Lawrence Ward, blockmakers, who had been employed to make a suit of blocks for the ship. Such was the delay of payment for the blocks that suit was entered at the court, November 2, 1647.

The value of the lading of the ship is given at £5,000 sterling. In this sum was included the plate, of which a large quantity was put on board, several hundred West India hides, a large quantity of planks, great store of beaver, and some corn and peas in bulk.

The value of the ship and cargo represented a large percentage of the property of the town. It comprised nearly one-seventh of the combined estates of the colonists in 1643, before disaster had overtaken them. At that time the value of the *personal* estates of the New Haven colony was £36,337 sterling. To arrive at the value of the same in 1876, we must multiply by three and one-half, and we are justified in supposing that after three years of reverses and losses, the wealth of the place had depreciated to such an extent that instead of one-seventh part, it is more probable that the ill-fated ship and her lading represented nearer a quarter of the wealth of New Haven.

As an evidence of the deplorable shrinkage of the estates, witness the appraisement of the estate of Governor Eaton:—

Valued in 1643 at	£3,000
Appraised at his death in 1658,	1,440

That of Stephen Goodyear:—

Valued in 1643 at	£1,000
Appraised in 1658 at	804

That of Francis Brewster:—

Valued in 1643 at	£1,000
Appraised in 1647 at	605

In the estimates of these estates I do not include the value of the land credited to them, averaging about two hundred and fifty acres to each in 1643. But it is included in the appraisement of the several properties. This makes more patent the losses which our early fathers were obliged to undergo.

When, after many weary months of waiting for tidings of the ship, the colonists realized the great loss which had fallen upon them, discouragement, perhaps it may be called despair, seemed to take possession of them. Not only had the sea swallowed a large portion of their estates, but they were also called to mourn the loss of seventy of their fellow-townsmen. Many of these were eminent both in the church and in the jurisdiction, especially so were Mr. Gregson, Mr. Turner, and the commander of the unfortunate ship, George Lamberton. The latter was one of the most valued of the settlers, and owing to his wealth and influence, he occupied a prominent position in the commercial portion of the community.

The ship, it will be remembered, was the vessel known as "The Phantom Ship," that was supposed to have been seen in the air, off our harbor, during the month of June of the ensuing year; and supposed also, by the godly portion of the colonists, to have been sent by Providence to intimate to them the manner of the taking off of their townsmen as well as the loss of the ship.

The loss of this ship caused almost, if not quite, an end to important foreign voyages. The colonists found themselves, with diminished resources, unable to prosecute any commercial enterprises of note.

They had selected the place of their settlement solely on account of its facilities for a foreign trade, and they were in no good condition to turn to agriculture. They were not only ignorant of such a calling, but the soil was so sterile and unyielding that they became well-nigh exhausted, and serious thoughts were entertained of abandoning the settlement and seeking another where the soil was more generous and the climate more genial.

It was, moreover, at this period that they were receiving tidings of the exciting times and events in England, and many of the settlers in New Haven and in other colonies meditated on these things until at length the same spirit of freedom which had brought them hither, lured them back to fight for liberty on their ancestral fields.

Yet one more attempt was made to establish a trading-post at Delaware Bay, and land was purchased there for the purpose; but meeting such determined opposition from the Dutch, and being unfairly treated by the Swedes, the project was abandoned, and was never more essayed. In these dark days there came from England one Captain Gookin, bringing with him from the lord protector an offer of lands to the New England colonists, or, at least, to such as should elect to accept them, on the fertile island of Jamaica, which had but a short time previous been wrested from its ancient owner by the valor of Penn and Venables. Governor Eaton received a letter containing such an offer, and by his order it was read at a meeting of the New Haven Court, May 26, 1656.

"Much debate there was aboute this thing (by the deputies of the several plantations there assembled), and a serious weighing and considering thereof, and though they cannot but acknowledge the great love, care, and tender respect of his highnes the Lord Protector to New England

in generall, and to this colonie in p'ticular, yet for divers reasons they cannot conclude that God calls them to a present remove theither, though if they could have found two men fitt and willing to goe with Captain Martin to view, they would have sent them at the charge of the jurisdiction; but that being hard and difficult to obtayne, must be deferred till another season, and for the present the Court onely desired an answer might be sent to his highnes the Lord Protector with all humble acknowledgement of his great love towards us." *

Probably one reason why the offer of Cromwell was declined may be seen in the fact that the earlier settlers were then aged people, and to attempt another remove would have been fatal to many and injurious to most. Eighteen years had been passed in the town, and the people, in spite of their wretched fortune, had an attachment for the colony; and doubtless, too, they still hoped that the time was not far away when opportunities would again present themselves, by improving which they might, in a measure, restore their wasted estates.

At this time, it may be stated, there prevailed in the West Indies a plague (probably yellow fever) so virulent that, to use the words of the chronicler, "the living could scarce bury their dead." This may have been one reason for the rejection of the offer, the colonists dreading the experience which had befallen Raleigh's Guiana expedition in their encounter with a tropical plague. During these years of adversity and distress for New Haven, one man there was who not only deserves an honorable niche in its history, but well merits the title that has been given him: "The Father of New England Commerce."

Among the names subscribed to the compact which, on November 11, 1620, was signed in the cabin of the "Mayflower," that of Mr. Isaacke Allerton is fifth, following that of Mr. Brewster, and preceding that of Miles Standish. He was not only a man of eminent parts, but also well skilled in financial matters. Previous to his leaving England, he had been engaged in commercial pursuits, and he was particularly well qualified to perform the important business with which the colony was soon to entrust him.

In 1626 Miles Standish returned to the Plymouth colony from London, where he had resided for some time as the agent of that colony, and Mr. Allerton, who at the time was the factor of the London merchants and entrusted with their colonial interests, was requested by his fellow-colonists to proceed to London as their agent; and to that city he went in the autumn of the same year.

The principal business to be transacted by Mr. Allerton in England was the making of a settlement with the London company, to which the colony was heavily bonded; and fearing lest in some manner the merchants might claim a voice in the jurisdiction, the colonists wished to make such an arrangement as would give the company no power in the colony. They doubtless appreciated the sentiment of Adam Smith, written one hundred and fifty years later, "that the government of an exclusive company of merchants is perhaps the *worst* of all governments for any country whatever."

Mr. Allerton was absent from Plymouth nearly seven months, returning to that place in the spring of 1627. During his stay in London he rendered very great service to the colony. Not only did he take up £300 of their indebtedness at thirty per cent., which he invested in goods for the benefit of the colonists, but he also made an arrangement with the London merchants whereby they agreed, for the sum of

* Bryan Edwards in his "History, Civil and Commercial, of the British Colonies in the West Indies," in treating of Jamaica, mentions the fact that in 1657 there arrived at Morant Bay, Jamaica, fourteen families from New England as settlers and planters.

£1,800, to relinquish all their interest in Plymouth. This agreement was made after great pains and infinite trouble on the part of Mr. Allerton; and for his successful management of the business, he received the thanks of the colonists. He returned to London the same year, taking passage in a small English vessel which was sailing for England. He carried with him sufficient beaver to pay some engagements made during his previous visit, and also nine bonds for £200 each, which he handed to the London company, and received in exchange for them conveyances for the entire claims held by the merchants on Plymouth. Nor was he merely the agent in this important transaction. He was one of the eight Plymouth colonists who made themselves personally responsible for the sum of £200 each, and who were known as the "Undertakers."

The year 1628 saw him again in the colony. He had brought with him the conveyances of the company, and also a patent for a trading station on the Kennebec river. Three months later this indefatigable man sailed once more for London. His business was to obtain a patent for Plymouth, and to facilitate, to the utmost of his ability, the removal of the Leyden church to the colony.

From that undertaking it would appear that he returned unsuccessful. But he sailed again for London in the same ship, and in due time came back to Plymouth, having many of the Leyden brethren with him. The ship that brought them was the "Lyon," commanded by William Pierce, who had been sailing between New England and old England from as early a time as 1622. For several years Pierce was the master of the "Mayflower," which belonged to the Massachusetts Bay colony. In 1641 he was killed at New Providence Island in the Bahamas. He made, in 1639, the first American almanac.

After the return of Mr. Allerton on the "Lyon," the colony ceased to regard him as its agent, giving this reason, that in the charter which he had procured for Plymouth, he had not managed to incorporate as many favorable provisions as the patent of Massachusetts Bay contained. They also accused him of having been "too lavish of money." His friend Sherley, writing to one of the Plymouth men in March, 1630, said: "Till our main business, the Patent, was granted, I could not settle my mind or pen to writing. Mr. Allerton was so turmoiled about it, as verily I would not nor could not have undergone it, if I might have had a £1,000."

The rigid economists of Plymouth, not knowing the number of itching palms of those who formed the court of Charles I., could not overlook the fact that over £500 had been lavishly "cast away" in vainly endeavoring to incorporate in the charter a clause whereby no customs were to be levied upon Plymouth cargoes for a certain time.

That the famous American custom of "greasing the wheels," and of "putting money where it will do the most good," was well known in London in 1629, the same letter from Sherley will prove to us. He writes: "The Lord Keeper (Sir Thomas Coventry) furthered it all he could, and also the Solicitor; but as Festus said to Paul, With no small sum obtained I this freedom; for by the way, many *riddles* must be *resolved*, and many locks must be opened with the *silver*, nay, the *golden* key."

Mr. Allerton considered that he had been unfairly used, and that his good name had been tarnished. He therefore resolved to draw himself from the colony, at least for a time; and he accordingly, in 1631, took passage for England in the Bristol ship "White Angel." To the last the colonists assured him that, while he was their agent, "they had ever found him untiring in his endeavors to advance the best interests of the colony."

Soon after reaching England, he determined to return to America, and engage in commercial transactions of his own. Hiring the "White Angel," he filled her with his goods, and embarking in her, sailed for the Kennebec and the Penobscot, at both of which places he established factories or trading posts. In this undertaking he was doomed to disappointment. Soon after his leaving the latter place it was visited by the French, who captured it, killed his agent and clerks, burnt his buildings, and carried away all his belongings.

Not cast down by this unhappy experience, he determined to succeed. He removed to Salem, where, in 1633, we find him engaged in "the Fisheries." During the same year, Winthrop speaks of him as fishing at Marblehead, employing no less than eight boats in that undertaking. He resided for several years in that place, engaged in mercantile affairs. While there, he was a ship-owner, and in the memorable tempest of August 16, 1635, his ship was totally lost on Cape Ann, and among the twenty persons drowned were the Rev. Mr. Avery, his wife and six small children, who were emigrating to Salem.

In 1636, we find him going in his barque to Penobscot, on a trading adventure. On the return voyage from this place, he was cast away on an island, where his vessel (quoting from Winthrop), "beat out her keel, and so lay ten days; yet he gate help from Pemaquid, and mended her and brought her home."

From Salem, Mr. Allerton went to the New Netherlands, and after residing there a short time he came, in 1646, to the New Haven colony.

Notwithstanding the many reverses of fortune which it had been his lot to experience, he was, it is evident, even yet a man of means, vigor and enterprise. He became at once a commercial leader here, and remained till his death prominently identified with the maritime interests of our town.

Here, by the creek, he built his famous mansion, the "House of the four porticoes," as it has been sometimes called. This house stood near where now stands the residence of Mr. Edward Buddington, at the junction of Fair and Union streets.

His warehouse was, without doubt, opposite to his residence. It stood as warehouses generally did at that period, on the bank of the creek (over the bed of which now pass the trains of the Consolidated Road), and was accessible to the small class of vessels which, till after the Revolution, composed the sea-going fleet of New Haven.

From this port Mr. Allerton sent his vessels to various places—to Massachusetts Bay, Virginia, Delaware Bay, and often times to "the Barbadoes." With the latter place, he had a very considerable interest, and as late as 1655, we find him in company with Ensigne Bryan, of Milford (the owner of the *great* Brig), complaining to the New Haven Court, "that by reason of bad biskit and flower they have had from James Roggers, at Milford, they have suffered much damage, and likewise the place lyes under reproach at Virgenia and Berbados, so as when other men from other places can have a ready markit for their goods, that from hence lyes by, and will not sell, for if it doe, it is for little above halfe so much as others sell for."

The finding of the Court was, that "*if* after this warning, James Roggers his flower, or bread, prove bad, he must expect that the damage will fall upon him, unless it may be proved that the defectiveness of it came by some other means."

In company with John Underhill, that famous Indian fighter, Mr. Allerton was requested by the Dutch governor of New Netherlands to raise, by authority of the Court, one hundred soldiers to be led by Captain Underhill against the Indians. The Court, however, propounded to consider the matter the next spring.

When, in 1643, Massachusetts and New Haven sent their three ministers, Mr.

Knolles, Mr. Tompson and Mr. James, to Virginia on their missionary errand, they being wrecked at Hell Gate, and receiving very slender entertainment from the Dutch governor, Mr. Allerton, being there, sent his pinnace, took great pains and care for them and sent them on their way.

Mr. Allerton resided in New Haven till his death, which occurred in 1659. After his twenty-nine years of incessant labor, of tireless zeal, and of indomitable perseverance, he still experienced the sad fate which was common to most of the New Haven pioneers; he died insolvent. His creditors were many; his debtors were few.

The will of Mr. Allerton was proven October 19, 1659. The inventory was small, and so greatly had property fallen in value, that his famous house, his barns, and two acres of land were appraised at £75 only.

This ancient New Havener well deserves to be remembered as one who came to the colony in its days of adversity, and who, during his long residence here of thirteen years, endeavored right manfully to do his part in retrieving the diminished fortunes of his fellow-townsmen.

It is a matter of sincere regret that we have so little information regarding the latter years of this remarkable man. With the exception of the frequent mention of his name in our Colonial Records, and some vague passages in Winthrop's Journal, we have but little which is definite in respect to this old Puritan merchant, this pilgrim of the "Mayflower."

The remains of Mr. Allerton were interred in the old burying-ground on the Green, not far from the spot where the Center Church stands.

"Then be honored the day when the 'Mayflower' came,
And honored the charge she bore;
The stern, the religious, the glorious men
Whom she set on our rough, native shore."

A brief notice is also due to the memory of another of our New Haven colonists, who was the contemporary of Mr. Allerton, and, like him, engaged in the foreign commerce of the town.

Prominent among the settlers in New Haven in 1638 was Mr. John Evance, one of the signers of the Quinnipiack Compact of June 4, 1639, and for eighteen years one of the most enterprising and energetic of the New Haven planters.

He ranked high in estate and paid as late as 1649 a trade tax on £550. His grant of land was where the Battell Chapel now stands, at the southwest corner of Elm and College streets. He was frequently chosen a deputy of the town.

During his residence in the colony he was constantly engaged in commerce, and the place was indebted to him for many valuable plans and suggestions favorable to its maritime interests. For example, he was, as before mentioned, one of those who first proposed building a wharf to facilitate the landing of goods from the vessels then beginning to frequent the colony.

He was at different times the owner of several vessels that he sent to the usual places with which New Haven was commercially interested. One of the earliest cases of litigation in the colony was begun by Mr. Evance, who brought a suit for damages against Captain John Charles, accusing him of most carelessly wrecking a vessel belonging to himself. This vessel, of which Charles was master, was homeward bound from the Azores, and was lost off Guilford Point, and with her "certayne pipes of Maderia wyne," and other goods—the whole valued at £100.

Mr. Evance "further acquaynted the Courte that at the *first* hearing of the said

losse, he apprehended it as an afflicting providence of God immediately sent for *his* exercise;" but, *after questioning* his captain, he thought it best to invoke *human* arbitration. The suit, which was long and tedious, was settled by the captain, Charles, paying to Mr. Evance "three-score and seaven pownds, and ordinary court chardges."

In 1649 Mr. Evance was again in litigation about one of his ships—this time with the old Dutch merchant, Will. Westerhousen. The suit had respect to one of the ancient New Haven vessels which had become involved in some trouble at the Manhadoes.

It appears that neither Mr. Evance nor Mr. Allerton were pecuniarily interested in the "Greate Shippe." It is difficult to assign a reason for this, unless it be that their practiced eyes detected such imperfections in the construction and lading of the ship as convinced them that the adventure would be fatal. It is a matter of history that the ship was "walty sided," and some one, if I remember aright, accuses Lamberton of placing the lighter portion of the cargo in the bottom, and the heavy articles on top, by which the ship was rendered so "tender"—to use a nautical phrase—as to cause her to be unseaworthy.

Mr. Evance remained in the colony till 1656, when, disheartened, he returned to London. His fate was no exception to the misfortunes of most of the colonists. His houses, lands, and all his interest in different ships were attached by Mr. Van Goodenhausen; and after a busy, active life here, for nearly twenty years, he went home to England a needy man. He was seen in London during the year 1661; but thereafter all record of him seems to be lost.

In the English ship, "The Glorious Restoration," which sailed in 1662 from London for Saint Christopher's with settlers, there was one by the name of J. Evance, and it is not improbable that he who bore that name was the ancient New Haven planter, who, with his old-time enterprise and energy, was resolved, in that fertile island of the Caribbean, to seek the success which, though well merited and nobly striven for, was denied him in New England.

Among the colonial merchants, the contemporaries of Evance and of Allerton, there are many deserving special mention.

Of these, Ensigne Bryan, of Milford, sent thence his ships to England, to the Azores, to Virginia, and as far east as Nova Scotia. For many years his credit stood so high that his notes of hand passed as current in Boston as bank notes do anywhere in our own time.

Nicholas Auger was a New Haven merchant who maintained an extensive trade with Boston and Plymouth. Dying in 1677, he left an estate which was appraised at £1,638.

Much might be said of that old West India merchant and shipowner, Stephen Goodyear, the proprietor of the famous ship "Zwoll," the cause of a tedious pen and ink warfare between Governor Eaton and Governor Stuyvesant of New Netherland.

Much also might be said of John Hodson, Ephraim How, Nathan Whelpleys, Henry Rutherford and Benjamin Ling.

Mr. John Hodson, the Barbados trader, the owner of the "Speedwell," left, when he died in 1690, an estate of nearly £2,200 sterling, the largest, if I mistake not, which was settled in the colony till as late a period as 1701. He it was who left a legacy to the First Church of New Haven of £5, "with which to buy plate"—a piece of which (and probably the only piece presented), with the name of the donor thereon inscribed, is still used and dearly prized by that church. His remains lie in the crypt of the church.

Ephraim How, the owner of the "Hopewell," which traded to Delaware and Virginia, died October 30, 1680. He left an estate of £352.

Nathan Whelpleys, a Barbados merchant, while visiting that island in command of his barque "Laurel," died and was buried there in 1680.

Mr. Henry Rutherford, the Virginia and Barbados merchant, whose quaint little warehouse is still to be seen in Fleet street, was the owner and occupant of the only colonial structure which, contemporary with the first settlers, has come down to us.

Benjamin Ling was a merchant of Old England, the owner of "Beaver Ponds." He died in June, 1670, leaving an estate of £939. His house stood near the site now occupied by the scientific school.

Nor will it answer for us to forget to mention that brace of ancient knickerbockers, Mr. Samuel Van Goodenhausen and Mr. Will. Westerhausen, who (undismayed at the discomfiture of the valorous Van Corlet at the fort of Good Hope, and it may be inspirited by the blasts of Anthony's famous trumpet), had journeyed to our colony from the Manhadoes, and residing here many years, maintained during the time an extensive commerce with foreign ports.

It would seem that with the death of the original adventurers, foreign commerce came to an end. There is scarce anything to show that, besides a small and unimportant coasting trade, there were any commercial undertakings of note. Occasionally one may find in the Colony Records notices of arrivals of vessels from Barbados and from the Azores.

The arrival of one New Haven sloop, the "Polly" by name, in New Haven, in 1697, furnished Cotton Mather with the materials out of which he composed the wonderful story found on page 254 of the second volume of the "Magnalia." Doubtless had Mr. Cotton lived in these iconoclastic days he would have considered the story to be one of the Munchausen order.

There is an account of one voyage of an ancient New Haven ship which will, perhaps, bear repetition: In October, 1653, Captain Carman sailed from our port in his ship of one hundred and eighty tons burden, and laden with clapboards, bound for the Canary Islands. He proceeded thither, "being earnestly commended to the Lord's protection by the church of New Haven." Reaching Las Palmas, he was met in sight of the city by a Saltee rover of three hundred tons, twenty-six pieces of ordnance and a force of two hundred men. Although Captain Carman had but twenty men and seven pieces of ordnance, he fought the Turk three hours, during which time he was unable to use his muskets because they "were unserviceable from rust." The author who recounts the story, says that "the Turk lay across his hawse, so as he was forced to shoot through his own hoodings, and by these shots killed many Turks. Then the Turk lay by his side and boarded him with one hundred soldiers, and cut all his ropes; but his shot having killed the captain of the Turkish ship and broken his tiller, the Turk took in his own ensign and fell off from him, but in such haste as he left about fifty of his men aboard him. Then the New Haven men came up and fought with those fifty hand to hand, and slew so many of them as the rest leaped overboard. The master had many wounds on his head and body, and divers of his men were wounded, yet but one slain; so with difficulty he got to the island, where he was very courteously entertained and supplied with whatsoever he wanted." The Turkish account of the engagement having never been received, we must accept Captain Carman's report as veritable.

For many years following the reverses of the colonists in 1650, we can find nothing to warrant us in believing that New Haven had not lost its commerce, its enterprise, and its maritime interests; and in lieu of taking its place as an opulent,

prosperous colony, deriving its support from trade with foreign lands, it was compelled to turn to agriculture for its sustenance, which eventually proved partially successful.

New London, at about the date before named, had several sea-going ships, and exceeded New Haven in foreign commerce ; but even there the commercial transactions were so limited and upon such a small scale that vessels of twelve to twenty tons were found to be sufficient for prosecuting foreign voyages. In 1660, Mr. Mould built at his ship yard in New London three vessels for foreign commerce. They were named respectively "Speedwell," "Hopewell," and "Endeavor," and were severally of twelve, seventeen and twenty tons burden. The last named made several voyages to Barbados, and was sold there, on the 10th of April, 1666, for 2000 weight of sugar.*

In 1669, an English ship of seventy tons, the "America," was sold in New London to Mr. Richard Lord and John Blackheath, of Stratford, for £230. She was at the time commanded and owned by Captain John Proute, of County Devon, England. After selling his ship, Captain Proute came to New Haven and took a grant of land. His house stood nearly opposite the street which now bears his name. His remains and those of his wife lie in the Centre Church crypt.

During the many years in which New Haven seems to have been without foreign trade, the surplus production of the farms was sent to the towns at the eastward, which were in a flourishing condition. Several pinnaces and ketches were trading to Boston and Salem, and to these places grain and beaver skins were sent for sale. The coasters on their return brought back to the colony such foreign articles as the settlers could afford to purchase.

Doctor Dana, in his discourse delivered by him, January 11, 1801, remarks that in 1740, "the whole navigation of New Haven consisted of two coasters and one West India vessel ;" and we are justified in believing that such had been substantially the case for sixty years previous, from which period till the close of the French war the commerce of New Haven ceased to exist.

Evidence of the small transactions which were carried on in New Haven is furnished us in the lading of the ketch "Speedwell," which left this port in 1745 for the Azores. The value of her cargo (in which was also included "sixteen quarts of rum for the master") amounted to but £90 4s. 6d. †

* In 1642, Mr. Richard Malbon journeyed from New Haven to Windsor, where he bought a horse for his friend in Barbados. He engaged with the owner of a New Haven vessel to carry the horse to Barbados ; but when he brought his horse to the ship, she was not large enough to accommodate the animal.

† In 1724, there were but 151 buildings in the town containing not over 900 inhabitants. In 1748, the number of buildings had increased to 225, and the inhabitants to about 1,400.

CHAPTER LXXI.

THE ANCIENT MARITIME INTERESTS OF NEW HAVEN—Continued.

REVIVAL OF THE COMMERCE OF NEW HAVEN PREVIOUS TO THE
REVOLUTIONARY WAR.

IN the fall of Quebec, and the subsequent cession of Canada to Great Britain in 1763, the maritime interests of New Haven may be said to have been successfully established; and so rapidly did the commerce increase, that from almost nothing in the decade from 1740 to 1750, it had in the following ten years grown so much that from 1760 to 1770 some thirty vessels annually left the port on foreign voyages; and during that time commercial relations were initiated between New Haven and the West India islands, which, with but slight interruption, have continued till the present time. Trade was also maintained with Great Britain, and in 1764 there arrived here from the city of Dublin the brig "Derby," of Derby, of forty tons, bringing for a cargo twenty tons of coals, and thirty-eight Irish servants. This is the first record of the arrival of Irish emigrants in our town, and, I think, of coals.

In the same year there sailed from New Haven for the island of Martinico a diminutive brigantine, by name the "Fortune." She was owned and commanded by one who, though at the time respected and trusted by his fellow-colonists, was in a few years thereafter to be known to all Americans as the *traitor* Benedict Arnold. His name figures extensively in the custom house records of those days. Adam Babcock and Benedict Arnold were owners of no less than three vessels, which were known as sea-going ships. They were severally named, the "Fortune," of forty tons; "Charming Sally," of thirty tons; "Three Brothers," of twenty-eight tons. Until the Revolution they were sailing to the French and English islands of the West Indies. Arnold's store at one time stood near the corner of George and Church streets, and subsequently in front of the "Arnold House," in Water street, where it is now to be seen.*

During the decade last named, New Haven vessels were occasionally sent to England and France, and the McAulays sent their diminutive schooners to Lisbon with wheat, in return bringing back salt and wines.

In the country adjacent to New Haven was raised in those days immense quantities of flax. The fibre was used in the domestic manufacture of linen, and the seed exported to Europe. So large were the quantities produced in the neighboring colony of New York, that in 1765 thirteen thousand hogsheads of the seeds were shipped abroad.

In New Haven the article was used as a medium of exchange, and appended to many advertisements in the *Journal* was the notice that "cash or flaxseed is received in payment for goods."

Captain Bontecou, in his barque "Hawke," of forty-seven tons, made many voyages to Cork, Ireland, having New Haven flaxseed for his cargoes. Many others

* Since the foregoing was written the building has been removed. The house is still in good repair.

did the same. These vessels, on their return, stopped at some of the West India islands, and after procuring another cargo were headed for New Haven.

This route home was what for nearly three centuries has been known as the southern passage, and which, till a comparatively recent date, was the course followed by ships from Europe bound to the westward.

The relations of the colonies at this time to England were of such a nature as to assure most of the American people that war would eventually follow.

In 1765 the delegates from most of the colonies met in congress, at New York, issued a protest against the grievances which they were compelled to endure, and prepared a declaration of their rights.

Three years later agreements were made between many of the leading merchants of New York, Boston and other ports, to import no British goods; and this in turn was followed by stringent measures of the British government.

The commencement of the Revolution, however, found the commerce of New Haven in a more prosperous condition than ever before. Not only had the population of the town increased, but its wealth also in a corresponding degree. Many new mercantile houses had been established, larger and more costly vessels had taken the place of those in use a few years previous, and it seemed as if the dreams of the early settlers, "that New Haven was to become a chief seat of trade," were about to be realized.

In exports, amounting to a few hundred dollars in 1750, the increase was so great, that in the year ending May 1, 1774, they amounted to \$142,000. Of the articles which contributed to make this value, there were one hundred and fifty thousand pounds of flaxseed; fifteen thousand bushels of wheat; twenty thousand of rye; thirty-three thousand of Indian corn; two thousand oxen, and fourteen hundred horses. The imports for the same period were of nearly equal value, as, indeed, they had been for the previous two years.

CHAPTER LXXII.

THE ANCIENT MARITIME INTERESTS OF NEW HAVEN—Continued.

THE COMMERCE OF NEW HAVEN DESTROYED BY THE REVOLUTION.

HE war of the Revolution put an almost, if not quite, complete stoppage to our commerce. During its continuance, little or none was prosecuted from this port. Occasionally clearances were issued to some adventurous shipmasters who sailed for the West Indies, hoping to elude the vigilance of the British fleet and to enter some of the French islands.

During the latter part of December, 1776, the brig "Liberty" sailed from our town, and by good fortune reached the Island of Martinique, where by the sale of her cargo a sum almost fabulous was received by her master. Reaching New Haven in safety, he reported his good news, which caused three other vessels to be fitted out for a similar voyage. But all of them were captured by an English frigate, and condemned.

Many of the vessels belonging to the town were taken up the Quinnipiack and the East Haven rivers, and also up the Housatonic, where they were dismantled and "laid up."

In November, 1780, a vessel was loaded for a foreign port. While she was lying at the Long Wharf, waiting an opportunity to proceed to sea, a boat was sent in the night from a British ship of war with a sufficient force to take this vessel to the enemy.

The last years of the war (judging from the New Haven papers of the period) were years of great privation; and in 1779 President Stiles notified the students of Yale College, "that on account of the great difficulty in procuring bread and flour, the vacation would be extended a fortnight longer."

Those of the citizens who felt that they could not go without their customary "11 o'clock dram," were notified by the distillers, Jacobs & Israel, that "they were prepared to turn all of their *Corn Stalk Juice* into Rum on shares or otherwise." That accommodating firm also offered to "distill any cider which families might have on hand."

Many of the quaint and rudely-fashioned articles of household use, which are now-a-days so eagerly seized and treasured as relics of the earlier colonial days, were doubtless merely the make-shifts which our good ancestors used till they should have an opportunity to supply themselves again with imported goods.

The termination of the Revolutionary War was a source of the greatest joy in New Haven, and we read in Mr. Green's paper of May 1, 1783, the following:

"Thursday last was observed as a day of festivity and rejoicing, in this town, on receipt of indubitable testimony of the most important, grand, and ever memorable event—the total cessation of hostilities between Great Britain and these United States, and the full acknowledgment of their sovereignty and independence. According, the day, with the rising sun, was ushered in by the discharge of thirteen cannon, paraded on the Green for that purpose, under elegant silk colors, with the Coat-of-Arms of the United States most ingeniously represented thereon, which was generously contributed upon the occasion by the ladies of the town. At 9 o'clock in the forenoon, the inhabitants met in the Brick Meeting-House for divine service, where were convened a very crowded assembly. The service was opened with an Anthem. Then a very pertinent prayer, together with thanksgiving, was made by the Rev. Dr. Stiles, President of Yale College; after was sung some lines purposely composed for the occasion, by the singers of all the congregations, in concert. Then followed a very ingenious oration, spoken by Mr. Elizur Goodrich, one of the Tutors of the College; after which a very liberal collection was made for the poor of the town, to elevate their hearts for rejoicing. At 3 o'clock were discharged thirteen cannon, at four twenty-one ditto, at five seven ditto, at six thirteen ditto. At seven o'clock were displayed the fireworks, with rockets, serpents, &c. At nine o'clock, a bonfire on the Green concluded the diversions of the day. The whole affair was conducted with a decorum and decency uncommon for such occasions, without any unfortunate accident; a most pacific disposition, and heart-felt joy, was universally conspicuous, and most emphatically expressed by the features of every countenance."

CHAPTER LXXIII.

THE ANCIENT MARITIME INTERESTS OF NEW HAVEN—Continued.

RESTORATION OF THE COMMERCE OF NEW HAVEN AFTER THE WAR
OF INDEPENDENCE.

AT THE conclusion of the war, the ancient enterprise of New Haven immediately evinced itself in the eagerness with which the merchants and shipowners recommenced their commerce with foreign countries. To the West Indian colonies, their vessels were dispatched in large numbers, and most welcome they were; for, during eight tedious years those colonies had been deprived of the food-stuffs which America only was competent to supply in such quantities that the price was rendered moderate to the consumer.

Throughout the war those islands which had during one hundred and fifty years depended for their supplies of food upon the American colonies, were forced to turn for the same to Canada and Europe; but from those countries such small quantities were received that the prices demanded for the same placed all imported food beyond the reach of thousands, who, to sustain life, were compelled to live upon the cheaper and less nutritious cereals of the tropics. Now were to be seen fleets of American vessels holding their course to the numerous islands of the Caribbean, laden with cargoes acceptable to the islands, and which, when sold, brought rich rewards to their enterprising owners. At that period our whole country, owing to the fact that our principal ports had been in the possession of the British during the war, was entirely destitute of all imported articles; and when once again commerce was permitted to resume its wonted course, it found a ready market to receive all of its importations, as well as a foreign demand for the surplus production of the country. The decade from 1783 to 1793 was a favorable one for the commerce of the town. The arrivals and departures of vessels for foreign ports during that period averaged seventy annually. The population of the place had gradually increased till in 1787 the city contained three thousand eight hundred and twenty souls, and there were registered in the district seven thousand two hundred and fifty tons of shipping. Many new houses for the prosecution of foreign trade were organized, and many vessels were yearly built at the three shipyards of the town; and, for the first time in its history, the city was able to boast of a full-rigged ship of *one hundred tons*, the "Philadelphia" by name; and so important had the commercial interests of the town become that a bank was found to be a necessity. Accordingly, in 1792, the New Haven Bank, with a capital of \$80,000, was incorporated. Soon after the New Haven Marine Insurance Company was chartered, with a capital of \$50,000; and but a little later the New Haven Chamber of Commerce, with Mr. Elias Shipman, president, and William Powell, secretary, was holding its weekly sessions in Ebenezer Parmalee's "front-room on the first floor," for the use of which the chamber voted to pay Mr. Parmalee eight shillings each night, he to furnish good candle-light and good fire.

In 1790 the increase of commerce required more wharf accommodation for the ships, which were yearly increasing in size and number, and at a meeting of the directors it was resolved to petition the General Assembly to authorize "the setting up of a Lottery to raise £3,000, the money, if received, to be used in repairing and extending the wharf," and it was also resolved by the directors (who probably saw prospective dividends resulting from the first resolution) to instruct Mr. Lyman, the taverner, "to increase hereafter at their meetings the quantity of his sling and toddy."

CHAPTER LXXIV.

THE ANCIENT MARITIME INTERESTS OF NEW HAVEN—Continued.

THE COMMERCE OF NEW HAVEN WITH BARBADOS.



DURING the decade before named, there was a restoration of our commercial intercourse with the ancient colony of Barbados, which merits more than a passing notice; for with that old dominion of the Antilles has New Haven been commercially connected since the days of Stephen Goodyear and Isaacke Allerton, and as early as 1622 ships were sailing between this island and Plymouth.

Barbadoes or "the Berbadoes," as it was fondly called in the days of the Stuarts, lies in $13^{\circ} 4'$ north latitude, and $59^{\circ} 37'$ west longitude, is sixty miles in circumference, and contains one hundred and sixty square miles.

The Portuguese admiral, Don Alvarez Cabral, discovered the island in 1501, while on his passage from Brazil to Lisbon. He took no interest in it, however, beyond erecting a cross upon it and claiming it in the name of his sovereign; nor does it appear that Emmanuel, King of Portugal, ever deigned to notice the discovery of the future garden of the Antilles.

Not until 1605, more than a century afterwards, and the year previous to the settlement of Virginia, was any attempt made to colonize the island. At that date, the "Olive Blossom," a ship owned by a London merchant, Sir Olive Leigh by name, and commanded by a veteran English seaman, John Catiline, was fitted out, and set sail from Woolwich, England, for "the Berbadoes," on the 18th of April, 1605.

A colony embarked in this ship under the patronage and at the cost of Sir Olive, and in due time reached the island. It made, however, but a short stay, and then went further south to Guiana, the fame whereof, through Sir Walter Raleigh's romantic reports, had filled all England.

The island was to remain unpeopled for nineteen years longer, and it continued unnoticed by the English shipmasters who were then beginning to frequent the Caribbean.

In 1624 a Dutch ship, having experienced a severe tempest a short distance south of the island, touched there for water, and also to repair the damage she had sustained.

The Dutch captain was so well pleased with the place, that when he reached Amsterdam he made very favorable reports of it, and endeavored to persuade a Dutch company to colonize it. Not succeeding in his project, he communicated his intelligence to Sir William Courteen, the "great and princely merchant of London," who was in Amsterdam at the time.

Sir William was born in the Netherlands during the persecutions inflicted by the Duke of Alva, but he escaped at an early age to London and engaged in the manufacture of French hoods. This proved so lucrative that he and his family were induced to interest themselves in the silk and linen trade, by which they made themselves so rich that in the year 1631, the profits of their vast transactions brought them the sum of £150,000, and so respected was Sir William, that he was knighted by James "for his merit."

The family of Courteen, of which Sir William was the head, had at one time a

claim of £200,000 against King James and Prince Charles. The ships of Courteen were among the first to cross the Atlantic to America. He had also many more sailing to China.

A very interesting fact in respect to the Courteen family is that the immense collections of Sir William's nephew were bequeathed to Sir Hans Sloane, and formed the nucleus of the British Museum.

On receiving so favorable a report from the Dutch captain, Sir William at once resolved to establish a factory in the island and found a colony; and this determination was made decisive when he returned to London, by meeting one of his own shipmasters, who, on his passage from Guiana, had visited the island, and who confirmed the glowing reports which Courteen had learned in Holland.

In the winter of the same year, under the powerful patronage of the Duke of Marlborough, Sir William dispatched two of his ships from the city of London for "the Barbadoes." They were supplied, we are told, "righte well and bountifullie by the mighty Sir William with all things needful for a new Plantation."

One only of the ships, the "William and John," reached the island. The other was separated from her consort during a violent gale, and doubtless perished with all of her company. She was never more heard of.

The colonists numbered but forty Englishmen and eight negroes. After protracted religious services on board the ship, which was anchored in the bay, they landed, and after a second religious service cast their lots for a governor.

The choice was one Mr. William Arnold, who had been the first to land, having jumped from the landing boat and waded to the shore, and from that period till to-day, the island, sustained by the strong, protecting arm of England, has in the highest degree enjoyed all the blessings of constitutional liberty; has ever been a model of industry and good order; is the only spot in the New World which, since its settlement, has had the British ensign waving over it without any interruption, even of an hour; is the only island in the British West Indies which has increased in wealth and population unassisted by governmental aid, since the emancipation; and its loyalty and devotion to the British crown are not exceeded by any county in old England itself.

The early colonists of Barbados were in a great degree Church of England men, and staunch Royalists; yet, as Oldmixon quaintly puts it, "Some there were of the party called Roundheads, or parliamentarians. However, both sides lived amicably, and by arrangement among themselves, they agreed that whoever should even so much as name the words Cavalier or Roundhead, should entertain all of his friends at his own house."

How well they entertained on the island at that date, let Richard Ligon tell.* And who was Richard Ligon? A zealous Royalist, a devoted churchman, and a lover of his king, he was obliged to quit London in 1649; and taking his passage on the ship "Achilles," he reached, after a tedious and eventful voyage, the island of Barbados. There he resided for two years, during which time he was a careful observer of men and of things in the opulent colony we are considering. On his return to London, he was thrown into Upper Beach Prison, where he remained for several years. In the prison he wrote his "History of Barbados," which he dedicated

* "So loyal were the islanders to the Crown that during the earlier years of the civil war, the Parliament forbade all trade with the Island on account of its people continuing to acknowledge the authority of the king. When Charles II. came to the throne, one of his first acts was to create thirteen of the islanders Baronets."

to his good friend and patron, Dr. Brian Duppa, Lord Bishop of Salisbury, that firm and loyal friend of King Charles I.

To Mr. Ligon we are indebted for the earliest history of a British West Indian island, and save a little romancing so common to the ancient historians, it is doubtless a faithful and true account of the island in the seventeenth century; and it has preserved much valuable information which otherwise must have been irremediably lost.

In one of Ligon's letters to the Lord Bishop, he informs his lordship that to impress him with some idea of the "prodigality and lavishness of the style of living then prevalent in Barbados," he will truly describe to him a dinner which he had attended at one of the island plantations shortly before his letter was written.

The years in which Mr. Ligon witnessed such evidences of wealth in the island were to our New Haven colony years of great privation and distress; and, as before stated, were those in which the abandonment of the colony was earnestly considered. The Barbados colony, on the contrary, was in the full tide of its prosperity. To the little company that had landed from the "William and John," in 1625, the increase had been so great from immigration, that the population in 1650 amounted to fifty-six thousand souls; and sugar-making had become so profitable that an estate of five hundred acres well stocked with servants, slaves, horses, camels, cattle and asses, was worth £14,000, or nearly one-half of the aggregate estates of the New Haven colonists in 1642, at which time the "grand list" was made, before disaster had overtaken them.

Mr. Ligon was invited to dine at the house of a famous Royalist, Colonel Drax, at his plantation, "Drax Hall" (which is to-day in the highest state of cultivation), and to show the contrast between the two colonies in regard to affluence and wealth, as well as the style of living, is the reason for giving the *menu* of the feast which gladdened old Ligon's eyes in 1649; and I am quite sure that Shakespeare had no such dinner in view when he made Prince Henry say of Falstaff's tavern bill:

"O, monstrous! but one half-pennyworth of bread to this intolerable deal of sack!"

"FIRST.

A Rompe boyl'd, a Chine roasted, a large piece of the brest roasted, the Cheeks bak'd, of which is a dish to either messe, the tongue and part of the tripes minc't for Pyes, season'd with sweet Herbs finely minc't, suet, Spice and Currans; the legges, pallets and other ingredients for an Olio Podrido to either messe, a dish of Marrow bones, so here are 14 dishes at the Table and all of beef: and this he intends as the great Regalio, to which he invites his fellow planters; who, having well eaten of it, the dishes are taken away, and another Course brought in, which is a Potato pudding, a dish of Scotts Collips of a legge of Porke, as good as any in the world, a fri-cacy of the same, a dish of boyl'd Chickens, a shoulder of a young Goate drest with his bloud and tyme, a Kid with a pudding in his belly, a sucking pig, which is there the fattest, whitest & sweetest in the world, with the pognant sauce of the brains, salt, sage, and Nutmeg, a loyne of Veale, to which there wants no sauce being so well furnisht with Oranges, Lymons, and Lymes, three young Turkies in a dish, two Capons, of which sort I have seen some extreame large and very fat, two henns with egges in a dish, four Ducklings, eight Turtle doves, and three Rabbets; and for cold bak'd meats, two Muscovie Ducks larded, and season'd well with pepper and salt; and these being taken off the Table, another course is set on, and that is of Westphalia or Spanish bacon, dried Neats Tongues, Botargo, pickled Oysters, Caviare, Anchoves, Olives, and (inter-mixed with these) Custards, Creams, some alone, some with preserves of Plantines, Bonano, Gnavers, put in, and those preserv'd alone by themselves, Cheese-cakes, Puffes, which are to be made with English flower, and bread; for the Cassavie will not serve for this kind of Cookerie; sometimes Tansies, sometimes Froizes, or Amulets, and for fruite, Plantines, Gnavers, Milions,

prickled Peare, Anchove Peare, prickled Apple, Custard Apple, water Milions, and Pines worth all that went before. To this meat you seldome faile of this drink, Mobbie, Beveridge, Brandy, kill-Divell, Drink of the Plantine, Claret wine, and Renish wine, Sherry, Canary, Red sack, wine, of Fiall, with all Spirits that come from *England*; and with all this, you shall finde as cheerfull a look, and as hearty a welcome, as any man can give to his best friends. And so much for a Feast of an inland Plantation."

Nor is the foregoing an extravagant account. Oldmixon, author of "the British Empire in America," who was a sojourner on the island in 1700, tells us of the "rich equipages, fine liveries, and the magnificent chairs, chaises, and traveling conveniences; of the splendid hospitality of the Gentlemen; of the genteel, polite behaviour of the Ladies, most of whom are bred in London."

In 1751 George Washington, who accompanied his invalid brother Lawrence to Barbados, was equally impressed with the evidences of wealth and culture which he witnessed there. In his journal he was particular to describe a dinner which he had attended at Judge Maynard's, and which was given by "the Beef-steak and Tripe Club."

Washington, after a pleasant sojourn in the island, sailed for Virginia on the brig "Industry," December 22, 1751.

The first commercial products of the island were woods of various kinds, tobacco, ginger, indigo, and cotton; and of these articles, large quantities were sent to London and Bristol; so large, that when Ligon arrived in 1647, he found in the bay twenty-four London ships loading and discharging their cargoes, notwithstanding the fact that there prevailed a violent plague at the time, "so great that the living were scarce able to bury their dead."

Not until 1640, fifteen years after the settlement in 1625, were the colonists aware of the wonderful adaptability of the soil for the production of the sugar-cane, and then it was only by accident that they learned it.

As early as 1140 the sugar-cane was imported into Sicily from Tripoli. Sicilian ships carried it to Madeira soon after its settlement in 1344, and thence it was carried by the Portuguese colonists to Brazil, from which country it was eventually taken in the sixteenth and seventeenth centuries to the cane-growing islands of the West Indies.

In 1640, a Dutch ship on her voyage to Holland from Ternanbock, now Pernambuco, touched at Barbados and landed some sugar-canes, which were no sooner planted than they began to grow "marvellously well." They speedily attained a wonderfully great height, and were so well filled with saccharine substances, that the planters, in great haste, sent to Brazil for more. From that time the cane has been cultivated with such success that it has been the great staple of production in that long chain of islands which stretch from British Guinea to the Gulf of Mexico.

The colonists of Barbados indeed urged the growth of the cane and the production of sugar with such eagerness, that instead of a few hundred tons sent to London in 1643, it had, in 1690, increased to such magnitude, that one hundred large ships were required to take the crop to England; and in 1720, the production was twenty-three thousand, eight hundred tons; in 1784, while the island was still suffering from the effects of the great hurricanes of 1780, the exports of sugar, rum, cotton and fustic amounted in value to £540,000 sterling; in 1792, but eight years later, the value of the crop was exactly double that of 1784, amounting to nineteen thousand, five hundred and eighty tons of sugar, five thousand, one hundred hogsheads of rum, three thousand, one hundred barrels of ginger, and one million, two hundred thou-

sand pounds of cotton, and it required two hundred and forty-three ships to take these rich products to London.

Sir Richard Schomburgh, after the most careful observation, reports the population of the island in 1840 to equal seven hundred and thirty-four souls to every square mile, and in comparison cites the most populous district in Europe, the Dukedom of Lucca, which contains four hundred and one persons to the square mile. Belgium has three hundred and twenty-one; Ireland, two hundred and fifty-one; France, one hundred and sixty-seven; and England and Wales, two hundred and seventy-five.

In this island, African slavery was seen for two centuries in its most hideous aspect; and from 1630 to 1825, it was, with Jamaica, the great slave mart of America.

The constitution of the white man was not well able to labor under the burning sun of the tropics; and had the production of the soil depended upon the labor of Europeans, Barbados would not have occupied the high station which she has held during the last one hundred years.

The earliest settlers, especially those who first essayed the cultivation of the cane, were so eager to obtain laborers, that no means were unused for this purpose; and it is worthy of note that during the year when Isaac Allerton was in London, endeavoring to facilitate the removal of the Leyden church to New Plymouth, there was in that city an agent from Barbados seeking some way by which more negroes could be forwarded from Africa to the colony, in order to increase the growth of cotton. So early as 1631, an "African Company" (of which no less a personage than Sir Kenelm Digby was a director) was organized to supply the British colonies in the West Indies with negro slaves; and in 1670, the Royal African Company—among whose subscribers were the King and the Duke of York—with a capital of £110,000 sterling, was hard at work, with a large fleet of ships, crowding the negroes into the West Indian islands.

Upon the accession of William and Mary, the African slave trade was thrown open to all of their majesties' subjects who might wish to engage in it; and thereafter the traffic, with all its distressing concomitants, was maintained and continued until the British government, no longer able to endure it, finally, in 1807, abolished and prohibited it.

At so early a date as 1650 there were in that diminutive island thirty thousand negro slaves; forty-one thousand in 1670, and nearly forty-seven thousand in 1683. At this period it required the importation of three thousand six hundred and eighty annually to "keep up the stock;" and sixty thousand tons of shipping were required to carry away the result of their labor.

During the ten years including 1698 to 1707, there were imported from Africa thirty-five thousand slaves. The arrival of them was so unceasing that the price of an able-bodied man was less than £20 sterling. The number continued to increase thereafter, so that when Washington visited the island in 1751, there were seventy thousand, and these were not the highest figures, for in 1833 it was found, by a most careful enumeration, that there were eighty-two thousand, three hundred and eighty men, women and children held in bondage, and on the 1st of August, 1834 (to use the words of Sir Robert Schombourck), "the sun rose upon eighty-four thousand free human beings who the day before were in a state of slavery."

In early days the island enjoyed the reputation of being a place where labor of any description would readily find purchasers, and thither went those who had labor to dispose of. When the Dutch captured Maranham from the Portuguese in 1643, the prisoners, numbering nearly one hundred, were sent by the Dutch general to "the Berbadoes" for sale; and about the same period two English buccaneers took

to the island two hundred young Frenchmen whom they sold for nine hundred pounds of cotton each.

Cromwell sent to Barbados many thousands of the Scots and the Irish whom he captured in the civil wars. When he received his "Crowning Mercy," at Worcester, he sent over seven thousand unfortunate Scots to the West Indies. Most of these were landed at Jamaica and Barbados.

Many of the Irish taken at the siege of Drogheda were sent to the island, and so much of this business was done by the Protector, that Carlyle, in "Cromwell's Letters," quoting from Thurloe, says: "He can take your estate—is there not proof enough to take your head, if he pleases? He dislikes shedding blood, but is very apt to 'barbadoes' an unruly man—has sent and sends us by hundreds to Barbadoes, so that we have made an active verb of it—'*barbadoes you.*' Safest to let this Protector alone!"

Jeffreys, while on his "Campaign in the West," sent hundreds of his poor victims to the Barbados; and numbers of honest young Somerset yeomen, who had followed the unfortunate Duke, were doomed to toil under the fierce tropical sun.

Indeed, these poor Englishmen were so hardly used, that out of seven thousand two hundred and thirty-five white slaves who were, in 1683, on the island, two thousand three hundred and thirty only, were living in 1698.

"To the Barbados with them!" appears to have been an equally favorite maxim with both Oliver and Jeffreys.

It was the severe usage of the slaves in that island and in Jamaica that, in 1780, prompted Cowper to write his plaintive "Negro's Complaint," and his "Pity for Poor Africans;" and in 1807, it caused the formation of "the African Institution," among the members whereof were Wilberforce, Clarkson, Buxton, Brougham, Macaulay, and others, whose names deserve well of their race in centuries yet to come.

In 1823 Sir Thomas Fowell Buxton brought forward, in the House of Commons, his famous resolution "to abolish slavery throughout the British dominions," declaring it to be repugnant to the principles of the British Constitution and of the Christian religion. Though the resolution was not literally adopted, it was practically so, in a supplemental resolution offered by Mr. Canning.

The bitter contest between the supporters and the opponents of the Emancipation Bill has long since become a matter of English history. After ten years of incessant labor by the friends of emancipation, they were rewarded by the passage of the act which forever abolished slavery in the British empire.

It was eminently proper, too, that the descendants of the men who, in 1562, encouraged Sir John Hawkins to introduce negro slaves into Hispanolia, should be the ones, nearly three centuries afterwards, to doom the trade to obloquy.

Mr. Wilberforce lived long enough to know that the bill would pass, and was told that it had been read for the second time, and died with the full assurance that the grand effort of his life would soon be successful.

The splendid statue in Westminster Abbey is not so noble a monument to his memory as is the gratitude enshrined in the hearts of one million dusky sons of toil dwelling and laboring as free men beneath the equator.*

* In a house in this place (Grosvenor Square) on July 29, 1833, died William Wilberforce, the eminent philanthropist, many years M.P. for Yorkshire, who is best known for his devotion to the abolition of the slave-trade. There is something peculiarly touching in the fact that Wilberforce died—*felix opportunitate mortis*—just as the abolition of the slave-trade was in the act of being carried through Parliament, and the last fetters struck from the slave's hands and feet. His funeral took place on the 3rd of August, in Westminster Abbey. On that day his friend's

In the vaults of the little parish church of Saint John, situated in the most romantic spot, perhaps, in the British West Indies, repose the mortal parts of Ferdinando Paleologus, the last of that great family of the Paleologi who, for so many centuries, upheld the cross in Constantinople; and when, at last yielding to the crescent, they became fugitives and were scattered throughout Europe, this solitary island was chosen by Ferdinando as his home. After living in the place many years as a planter, he died on the 3rd of October, 1698.

Many years before the heroism and valor of Lord Nelson were commemorated by the erection of those noble monuments which stand in Sackville street, on Calton Hill, in the Court of the Merchants' Exchange at Liverpool, and also before the great column rose in Trafalgar Square, there was raised in that far-away colony an enduring statue of the admiral in bronze. Of heroic size, in the full uniform of a British admiral, it stands with the hand pointing to those waters which, for years, he so gallantly and faithfully guarded, and which were the scene of his early exploits and the witness of his patriotism and courage.

With this colony, whose history I have so rapidly and imperfectly given, New Haven, as before mentioned, has exchanged commodities for two hundred and fifty years; and in commercial relations with the island were most of the pioneers of our colony, and not the least interested was Governor Theophilus Eaton.

CHAPTER LXXV.

THE ANCIENT MARITIME INTERESTS OF NEW HAVEN—Continued.

THE COMMERCE OF NEW HAVEN DAMAGED BY THE WAR OF THE FRENCH REVOLUTION.



At no time in the commercial history of New Haven had the future seemed so auspicious as in 1793, when this place began to feel the baneful effects of the wars of the French Revolution. Fully two-thirds of the commerce of this port was with the islands of the West Indies, and their waters were soon filled with the war vessels of the contending powers. The depredations committed by the French men-of-war, privateers and letters of marque caused great loss to American shipowners in general, and particularly to those owning New Haven vessels. From these seizures and confiscations arose those interests which have, for over three-quarters of a century, been known as "the French Spoliation Claims," and which, in all probability, will ever remain little else than "claims."

After a long series of spoliation upon our commerce by the French vessels of war, a claim for damage was made by our government. A counter claim was made by the French, who accused us of disregarding the terms of the alliance made between the two nations. To have kept the treaty would have involved us in a war with Great Britain, and this course of action President Washington strenuously opposed.

son, Thomas Babington Macaulay, wrote: "We have laid him side by side with Canning, at the feet of Pitt, and within two steps of Fox and Grattan. He died with the promised land full in view."—*Walford's Old and New London*.

Finally a settlement was reached by an "offset." France agreed to give up the obligation of the treaty, and the government of the United States promised to settle with those of its citizens who had suffered from French spoliation.

From that time to the present no reimbursement to such citizens has ever taken place; and it must go down through all future history, as a "most shameful neglect of a sacred obligation."

During the wars which began in 1793, the great number of French and British cruisers which were to be seen in the West Indian seas made navigation in that quarter, as before remarked, a most perilous undertaking for ships owned by citizens of neutral nations, and more especially so for those vessels which sailed under the American flag. Our ensign, at that period, did not elicit a tithe of the respect which is now extended to it wherever it is seen.

Through all the years in which the commerce of the world was disturbed and deranged by the fierce conflicts of the mighty powers of Europe, no country, except those directly engaged in war, suffered so severely in its commerce as did the United States and no city of this country, in proportion to the capital invested in foreign trade, suffered more inconvenience or met with heavier pecuniary losses than did New Haven. This was due to the fact that almost the entire foreign commerce of the port was with the islands of the Caribbean, and nine-tenths of that commerce was with the colonies of the contending powers. Upon the slightest suspicion that an American vessel contained either English or French property, her seizure was inevitable; and for adjudication she was sent into ports belonging to the belligerents. Within a few months after the outbreak of hostilities a large number of vessels owned in New Haven had been seized, condemned and sold by the two powers. In April, 1794, there were lying in the harbors of Antigua, Saint Christopher and Barbados one hundred and fifty-two American vessels awaiting the decision of the British Courts of Admiralty; and of that number eleven were owned in the New Haven district. In the harbors of Martinique and Guadeloupe there were, at the same period, one hundred and two American vessels awaiting the decision of the French Marine Court, and included in the list were eight New Haven brigantines. The interpretation of seizure was generally confiscation, and few American merchants, after learning of the capture of their vessels, had the hope of ever again beholding them.

To the many sufferers from English seizures, doubtless some satisfaction was offered by the knowledge that in December, 1794, there were so many captured ships belonging to Great Britain lying in the harbor of Brest, that a gentleman of our city, writing from that place, observed that he "fancied himself on the banks of the Thames, so numerous were the captured British ships, and rich Indiamen by scores."

Great indignation, as well as sorrow, was observed in New Haven in May, 1794, when a small vessel, arriving from the West Indies, brought intelligence of the seizure of six brigs owned in the town. These unfortunate crafts, by name, the "Cygent," "Sally," "William," "Neutrality," "James," and "Anna," were filled with cargoes representing a very large value, and bound for English ports in the West Indies. They had nearly reached their respective destinations when they fell into the hands of the French, and were sent into Guadeloupe for trial; and so *effectually* were they tried that one only was released. All the others were condemned and sold. The pecuniary loss which the New Haven commerce suffered by the seizure of these six vessels amounted in value to \$93,000.

The British and French cruisers in the Atlantic were so numerous that it was by no means an infrequent occurrence that a neutral ship was boarded by officers

attached to these vessels several times during the passage to and from ports in the Caribbean. Such was the experience of the brig "Anna," of New Haven. On her passage home from the Danish island of Santa Cruz, she was five times boarded by boats from cruisers, twice from those belonging to France, and thrice by those of Great Britain. An officer of one of the French boats ordered his men to carry off nearly everything eatable on board of the New Haven vessel. When the captain inquired what he and his people were to do for food, he was told by the French officer to "eat pine shavings," and was also informed that this juicy and nutritious diet "was proper food for Yankees." Fortunately for the vessel, she was from a neutral port, and afforded no pretext for seizure.

Not so fortunate, however, was that veteran ship-master and ship-owner, Captain Gad Peck, who was captured no less than three times, while commanding as many different vessels. His last capture is well worthy of a brief description, and presents one of the most interesting adventures in the experience of a New Haven ship-master.

The ship "Mohawk," built in 1793, at the Olive street ship-yard, was mainly owned by several New Haven merchants, and commanded by Captain Peck, who owned one-quarter of her. Soon after the intelligence was received of the capture of Martinique by the British, the owners of the "Mohawk" loaded her with flour, and, under the command of Captain Peck, she was headed for the island before named. She had well nigh made the passage, when a large and heavily-armed French privateer came in sight, gave chase and captured the "Mohawk." A prize-crew of a lieutenant and twelve seamen were placed on board; and the New Haven men felt great fear and anxiety when they learned the next morning that the privateer which had captured them was owned and sailed in the interest of Victor Hugues, governor of Guadeloupe.

That wretch whose memory is almost daily cursed throughout the English islands was born in the north of France, of most obscure parents, and was apprenticed in his boyhood to a hair-dresser; and in the occupation to which he was thus trained he emigrated to Guadeloupe. On reaching the island he gave up his shears and became an innkeeper. Not succeeding in his new pursuit, he became the master of a small trading vessel, and thereafter received a lieutenant's commission in the republican navy of France. He was in Paris when the Reign of Terror began, and forthwith attached himself to the Robespierre faction, and through the influence of the latter he was made a member of the National Assembly. A few weeks later Robespierre appointed him commissioner of the republic at the splendid island of Guadeloupe, giving him the controlling power over the entire army and navy in that quarter. Of all who were engaged in the French Revolution no one proved himself more worthy of his great patron and exemplar than Victor Hugues. He was a savage, remorseless and bloody as Robespierre himself.

The first act of Hugues, on landing at the island as commissioner, was to order the remains of the honored Major-General Dundas (who, while leading the British troops the year previous, had been killed and interred in the fort by the honorable predecessors of Hugues) to be dug up and thrown into the little creek which flows through the town. The same day he visited the little hamlet of Petit Bourg, where lay one hundred sick and wounded British seamen and soldiers. When he appeared a committee of the prisoners met him and requested to be allowed to enter the hospital. Promising to consider their appeal, he ordered a company of French soldiers to proceed to the village and slaughter every one of the hundred prisoners. The order was thoroughly obeyed. Only one prisoner, Colonel Drummond, was spared;

and he was driven from a sick-bed to work, like the meanest laborer on the docks, and to add indignity to hardship and cruelty, he was compelled to wear the garb usually worn by condemned criminals.*

With the knowledge of these acts of Hugues, it is no wonder that Captain Peck and his company dreaded to meet the commissioner and answer the charge of supplying the enemies of France with provisions.

The prize crew, when put on board the "Mohawk," were ordered to carry her into Guadeloupe, about five days' sail from the place of her capture. The night after the seizure of the ship, Captain Peck cleverly managed to converse with each of his crew, and it was arranged, that the next evening they would retake their vessel or lose their lives in their effort. At 8 o'clock the following night, soon after the French watch had been sent below, Captain Peck, who had been conversing, as well as he was able, with the Frenchman in command, said, "I think (or probably I guess), I'll go below and turn in." The French lieutenant bade him a courteous "good night," and into the cabin went the quondam captain of the ship. Knocking down the sentry who was stationed inside of the doors, and grasping a broad-sword belonging to the officer, he gave the signal agreed upon between himself and crew, rushed upon deck, and seized the prize-master, who saw over his head his own sword in the hand of a desperate man, and so yielded at once. Meanwhile, the crew had overpowered the six men composing the French watch, as well as secured the hatches to prevent the other six from coming on deck; and in less time than we have consumed in narrating the story, the "Mohawk" was again under the command of her original master. The voyage to Martinique was abandoned, and with her starboard tacks aboard, the ship was headed for Saint Eustatius, which island was reached the fifth day after the re-capture.

The news of Captain Peck's courage and achievements soon reached America, and gained for him much renown; and when he finally brought his fine ship in safety back to our port, and gave to his fellow-townsmen a true account of the adventure, their admiration of him was so great that they honored him in the old Anglo-Saxon style by a "public dinner."

A few weeks after his arrival at home, he again sailed in the "Mohawk" for a French island, but was captured by a British frigate (on suspicion of his having on board French property), and sent into Tortola, where an Admiralty Court was occasionally held. The cargo was confiscated, but the ship was released. It was said that the release was owing to the fact that the master had "a friend at court."

As before intimated, the presence of so many vessels of war carrying the ensigns of the contending powers in the West India waters, made the frequenting of those seas far too hazardous a business for American vessels to prosecute, and it was evident that to sustain a commercial intercourse with the West Indian islands, a neutral port was a necessity—a port where American vessels could in safety discharge their cargoes, and themselves be safe from capture.

"If thine enemy hunger, feed him," is a maxim quite as politic as it is Christian. America certainly did her share toward feeding the great armies and navies which were near her from 1794 to 1797, and again from 1799 to 1815—whether entirely from the latter motive is hardly doubtful.

* When Benedict Arnold visited Guadeloupe, in 1794, to endeavor to collect some debts due him, Hugues and his General, Fremont, learning that Arnold had a large sum of money in his possession, decided that he should be guillotined, and the headsman was so ordered. But Arnold became apprised of the order, and contrived in the night to barrel up his effects and throw them into the sea, and to escape himself upon a raft. He was picked up by the "Boyne" frigate the next morning.

The demand throughout the West Indies for American cereals, great in times of peace, became in those years of war enormous, from the fact that the body of consumers was vastly increased by the accession of the navies and armies of European powers. The supplying of so great a population with food could be done by America more easily and cheaply than by any other country.

Over fifty thousand soldiers were stationed in the British islands for many years, and full as many in the French colonies. During the military and naval operations of the English against Saint Domingo from 1794 to 1798, not fewer than twenty thousand British soldiers were buried, nine-tenths of whom were victims of the climate.

At different times during the war Jarvis, Hood, Saint Vincent, Cochrane (those famous hunters of Frenchmen), were with their fleets pursuing their enemy through the nooks and hiding-places of the West India waters.

Nelson was in that quarter only four months previous to his death at Trafalgar, with his famous squadron of seventy-fours. The flag-ship of that squadron, the "Victory," of one hundred guns, is still to be seen at Portsmouth, and no man with Anglo-Saxon blood in his veins can visit her without almost involuntarily raising his hat as he crosses her bulwarks and steps upon the deck where Lord Nelson received his fatal wound.

But the French in those days did not fall far behind their opponents either in the number of ships or of men. Villeneuve was at the time in Martinique with a splendid fleet of forty-five men-of-war. Most of these carried eighty guns each. They were manned with twelve thousand French soldiers, who, in addition to the seamen, accompanied the fleet wherever it might be ordered.

Cruising in those waters also was the veteran French Admiral Missiesay with his flying squadron of ten fifty-gun frigates and five thousand troops, the latter under the command of Count LaGrange.

To the United States these great numbers of men looked for the supply of bread-stuffs; and to obtain the high prices which were paid in the islands, hundreds of American vessels bent their course thither, willingly running all risks of capture and confiscation.

Into Jamaica, during the years of 1800 and 1801, there were imported, for the use of the troops only, American provisions of value of £105,881; and for the use of the navy, provisions amounting in value to £115,692. This sum, however, fell materially behind that which arose from the purchase of American provisions for the army and navy at the headquarters of the Windward Islands in Barbados. At that place the importations from America were almost fabulous in value.

In the furnishing of supplies for the uses before mentioned, the New Haven vessels enjoyed their share, and during the few first years of the war, the exportations from our port were of a very extensive character; and notwithstanding the heavy losses which seizure had inflicted on the commerce of our town, we find that in 1800 there were registered in the district upwards of eleven thousand tons of shipping. This proves that there must have been constant building of ships to replace those which had been captured.

There seems to have been, at the commencement of this century, many importations from European ports; and, for the days of which we are speaking, very valuable ones. From Marseilles came several New Haven vessels with cargoes of wine and brandy. From Bordeaux, shiploads of rich French goods; one vessel, the "Esther," bringing to our port a cargo of claret wine and silks upon which was paid a duty of nearly \$9,000. From Cadiz were brought several cargoes of wines, oil,

opium, etc. From London came ships laden with the myriads of articles of British manufacture; and it may be said that our city imported at that time nearly everything required direct from Europe. During the years 1800, '1, '2 and '3, a very gratifying increase is witnessed in exports and imports, and the multitudes of advertisements which are to be seen in the *Connecticut Journal* show us how prosperous was our commerce, and how rapidly the maritime interests of the town advanced. Among the principal articles brought to our port during the years before noted, were:

Tea	781,620 pounds.	Wines	197,681 gallons!
Coffee	518,000 pounds.	Gin	38,600 gallons!
Sugar	5,805,000 pounds.	Brandy	81,000 gallons!
Rum	1,596,983 gallons!		

The large importations of the four last-named articles fill us with wonder, to say the least, when we contemplate the swallowing capacities of our old townsmen. No wonder that they required the enormous flip-bowls which are occasionally met with in our ancient houses.

In the history of American commerce it had never experienced so disastrous a shock as was caused by the order which Bonaparte issued in November, 1806. He therein declared "the British Islands in a state of siege, forbidding all commerce or correspondence with them. No ship, coming from any English port or from any British colony was allowed to enter any port. All trade in English goods was prohibited. Any ship seeking, by false declarations, to evade the regulation, was, with its cargo, to be confiscated the same as if British property."

England was prompt in making reprisals, and on the 7th of January, 1807, an Order in Council was issued, "forbidding neutral vessels to enter any port belonging to France, or to her allies, or under her control. Every neutral vessel violating this law was, with its cargo, liable to seizure and confiscation."

Still more oppressive for the commerce of neutral nations was a second Order in Council of November 11, 1807. By this order, "all harbors and places of France, and of her allies in Europe and the colonies, as well as of every country with which England was at war, or from which the English flag was excluded, was placed under the same restriction as if blockaded by an English fleet." This was immediately followed by a manifesto from Bonaparte. He issued at Milan his famous, or, shall we not rather say, infamous decree, by which it was ordered, "that any vessel of whatever nation, that had been searched by a British ship; that had been sent on a voyage to an English port; or that had ever paid any duty to the British government, was declared to be *denationalized*, and treated as English." This was supplemented by the "Fontainebleau decree," "whereby the destruction of all British property by burning or otherwise was ordered."

Then began that distasteful, annoying and intolerable "searching of American ships" by English and French war vessels—a practice which continued till the close of our later, and we trust our *last* war with Great Britain.

So intent were the cruisers of the contending powers in carrying out the instructions of their respective governments, that captures of American vessels were made almost within sight of Sandy Hook lighthouse, and of the shores of Cape Cod. Several large ships with valuable cargoes from British East Indian ports, after having circumnavigated the globe in safety, fell prizes to the insignificant French letters of marque which ranged up and down our coast, boarding our ships, and seizing those that had British clearances.*

* About this period, the ship "Jupiter," from Calcutta, with a cargo of the value of nearly half a million dollars, was captured in sight of Barnegat Beach by a French privateer of eighty tons, and the ship thus seized was sent to Brest.

Our government was not in a position either to protect the commerce of the country, or to resent the countless insults which were daily inflicted upon the flag. A short-sighted, economical policy had caused so small appropriations to be made towards placing the navy in an efficient condition, that at the period of which we are treating, the United States possessed but fifteen ships of war, carrying three hundred and sixty-six guns only, the two largest vessels, the "Constitution" and the "Constellation," having a battery of forty-four guns each. This small naval force was totally inadequate to extend any protection to the merchant marine of the country, which then measured eight hundred and seventy-six thousand, nine hundred and twelve tons. Several of the large cities built and equipped ships of war of their own, and either loaned or presented them to the government. As early as 1798, the patriotic citizens of Newburyport, through their representative in Congress, made the following proposition:

"Sir: A number of the inhabitants of this town have agreed to build and equip a ship of 355 tons burthen, to be mounted with twenty (20) six-pound cannon, and to offer her to the government of the United States for their use. They have also voted that they will not accept of any further or other compensation from the government than an interest of six per cent. per annum on the net cost of the ship and equipments, and a final reimbursement at the convenience of the government of said net cost; and they have appointed us a committee to inform you of their intentions and to request you to promote a provision whereby they may be enabled to carry their designs into execution by the countenance of the government so far as the same shall appear necessary."

This offer was most gratefully accepted by the government; for its treasury was almost empty and it was unable to build ships of its own in sufficient numbers to guard even the entrances to our important ports.

The city of Philadelphia, soon after the above memorial was presented to Congress, built and outfitted a fine ship of five hundred tons, which was tendered to the government of the United States. Six years later (1805) Congress passed an act whereby "armed vessels were forbidden to leave the ports of the United States unless by special permission, under penalty of forfeiture." This was caused by the cautious policy of the government, that chose rather to maintain peace by avoiding collisions at sea, than to assert forcibly the rights of her citizens to carry on a lawful trade with foreign nations. For several years previous to the passage of the foregoing regulation, it had been the custom of nearly all sea-going vessels (from our own town as well as from others) to carry an armament varying from one to twenty guns; and frequently good service was done by those old-fashioned four and six pounders.

Handicapped as was our commerce by the arbitrary orders of France and Great Britain, as well as by the inability of our own government to protect it, or to compel restitution to be made to the injured citizens, it was only too willing to avail itself of the advantages which were offered by neutral ports; and to the shipowners whose vessels frequented the Caribbean, no place presented so many advantages as did the Dutch island of Saint Eustatius, which, from the fact that with it for many years New Haven held rather peculiar relations (much like those which France and England maintained at Nassau during our Civil War), is deserving of a passing notice.

Saint Eustatius, so named in honor of the brave old soldier, Eustache, lies in north latitude $17^{\circ} 30'$, and was discovered by Columbus on his second voyage to America. The island is scarcely more than a rock which springs abruptly from the waters of the Caribbean. Its singular pyramidal form presents to the traveler a very unique and pleasing object, while it affords to the mariner an infallible beacon. No

island in the West India group has experienced the vicissitudes of war and fortune as this now obscure island of Saint Eustatius. It was first settled by the Dutch in 1600, and remained in their possession till 1665, when it was captured by an English fleet, but restored by the British two years later. In 1687 it was again captured by the English who ceded it to France, but soon received it again and then returned it to the original owners on the accession of the Prince of Orange to the British crown. Thus, it passed from nation to nation six times in about thirty years during the last half of the seventeenth century. During the eighteenth century a large trade was maintained between the island and New England, many vessels coming from thence to New Haven.

During our Revolutionary War, this country received from the island large quantities of ammunition and naval stores. When this fact was reported to the admiral in command of the British fleet at Jamaica, a squadron commanded by Rodney was at once sent to chastise the islanders severely. Upon arriving at the island the British admiral demanded its surrender, which was at once yielded. The merchants, however, protested against what they termed an invasion of their rights. They also insisted that Saint Eustatius was a *free port*, and that the valuable stores which it contained were the property of many other nations as well as of the Dutch. Rodney's reply was, "that the merchants, of whom many were British, were even then under contract to furnish naval stores and provisions to the enemies of Great Britain." "The island of Saint Eustatius," said he, "is Dutch; everything in it is Dutch; everything is under the Dutch flag; and as Dutch it shall be treated." He accordingly seized property of the value of *two millions sterling*, including six Dutch men-of-war and one hundred and thirty merchant vessels.*

A squadron was also sent by Rodney to overtake a convoy which had sailed just previous to his arrival, and which was valued at one-half million sterling. The British squadron overtook and captured it entire.

The town was destroyed and the inhabitants rendered penniless as well as homeless. A large emigration took place from the island to the neighboring Dutch colonies, and the place sunk into decay.

A few months after Rodney's visitation it was captured by the French Admiral De Bouiellé, who forthwith returned it to the Dutch. Once again it was taken by the British in 1809; but in 1814 they restored it to Holland, under whose government it has since remained. Thus it passed some ten or twelve times in a century and a half from the hands of one nation into the possession of another power.

In 1794 the population consisted of a few thousand whites and blacks, who, while cultivating the land and building boats, did but little else. Almost immediately upon the outbreak of hostilities between Great Britain and France, vessels of various nations began to frequent the harbor, and French and English merchants took up their abode upon the island.

The place not only possessed a safe and spacious harbor, but also enjoyed that great advantage to a neutral port, proximity to the important islands of the belligerent powers; and to that harbor of refuge and security hundreds of American and other neutral vessels held their course, and from England, France, Spain, and the United States thousands of adventurers hastened their steps to that heretofore almost desolated island. In such numbers did they arrive there, that in six years the population increased from 4,500 to 21,300 persons, exclusive of the seamen in the ships anchored in the bay.

* Horace Walpole, in his last Journals, 1781, makes the remark: "To-day came news of Rodney taking Saint Eustatius. The Dutch admiral was killed."

So great was the demand for warehouses that two sides of the bay—a tract as large as that which extends from our old lighthouse to Fair Haven—presented one continuous line of solid one-story stone buildings. These warehouses are now in a dilapidated condition, but in them at that time were exposed for sale the representative products of every clime. For nearly fifteen years this place was “the shop” of the West Indies; and from this island were brought by the New Haven seamen many of the curious and interesting articles of glass and pottery which are owned by the representatives of our old families, and which upon inquiry we are told “came from Statia.”*

The island was for several years a great resort for New Haven vessels, and often fully one-half of the sea-going fleet of our port was at the same time in its spacious harbor.†

Much of the commerce of the island was of a description which would not have borne a close investigation; and at the period of which we are speaking there could have been seen in the port the contrabandier from the French islands, the contrabandista from the Main, and the genuine old channel smuggler from the English colonies. Any of these were ready at all times to undertake, “for a consideration,” the risk of landing a cargo at a port in any of the blockaded islands, or of conveying important intelligence to the office of the blockading squadron or of the besieged forts.

Such an unhealthy status of commerce naturally begot a demoralized condition of society at large. All there knew that when peace should be declared their occupation would be gone and themselves forced to seek for pastures new.

We are told that “men’s words and bonds became of but little value, contracts were annulled at will, pledges were violated, and a debased state of morals was observed in every calling.”

Perhaps nothing can give us a better expression of the disgust that such a condition of things produced in Englishmen some distance removed from the place, than the following report of the market which was presented to the readers of the *Royal Nassau Gazette*, of

MAY 15TH, 1803.

PRICES CURRENT AT SAINT EUSTATIUS.

Good Names.	Very scarce, 200 will sell at from 500 to 800 dollars each, some honest gentleman will engage to take one monthly.
Genuine Courage.	Is worth from \$8 to \$14 per gill.
Honor and Honesty.	Of no value.
False Oaths.	In demand, say 2 shillings each.
Self-Consequence.	Overstocked with.
Hospitality.	Scarcely known, is much wanted.
Promises.	Dog cheap.
Performances.	Very scarce.
Credit.	Died last Wednesday.
Merit.	No recommendation.
Gratitude.	Quite out of fashion.
Duplicity.	Much in vogue.
Hypocrisy.	We are glutted with.

* In a letter from a friend in St. Eustache received to-day, he asks: “Are you aware that in this now almost forgotten spot the American flag received its first salute from a foreign nation?”

† Since writing the above, I have been informed by one of our oldest citizens, now in his ninetieth year, that at the commencement of the century he counted thirty New Haven vessels moored together in that fine harbor of Saint Eustatia.

This, no doubt, was a correct view of the commercial unhealthiness of the island during the days of the neutral trade.

A few years subsequent to the publishing of the foregoing report, a British fleet commanded by Admiral Cochrane, accompanied by a powerful military expedition under the command of Sir George Beckwith, appeared off the island and demanded its surrender on the ground that the interests of Great Britain required the port to be subject to the immediate control of the British forces in the West Indies; and under such jurisdiction it remained till the treaty of Paris in 1814. Since that date it has continued under the Dutch government.

Immediately after the capture of the island by Admiral Cochrane, the commerce of the place began to decrease, and the close of the following decade saw it the obscure and deserted spot which is to be witnessed to-day.

During the troublous times to which we have referred, there was granted to those New Haven vessels that were sent into the Caribbean the following municipal letter, which was appended to the regular custom-house clearance.

It appears to us of to-day a very useless as well as a most obsequious document. It was printed in English, French, and Dutch, and read :

“Most Serene, Most Puissant, High Noble, Illustrious, Honorable, Venerable, Wise and Prudent, Lords, Emperours, Kings, Republics, Princes, Dukes, Earls, Barons, Lords, Burgomasters, Schepens, Counsellors, as also Judges, Officers, Justiciaries, and Regents of all the good Cities and Places whether Ecclesiastical or Secular, who shall see these Patents or hear them read. We, Samuel Bishop, Mayor, make known, that the Master of the ‘Catherine,’ of 84 tons burthen, which he at present navigates, is of the U. S. of America, and that no subject of the present belligerent Powers has any part or portion therein, directly or indirectly; and as we wish to see the said Master prosper in his lawful affairs, our prayer is to all the before named, and to each of them separately, where the said Master shall arrive with his vessel, they may be pleased to receive the said Master with goodness and treat him in a kind, becoming manner, permitting him upon the usual tolls and expenses, in passing and repassing, to pass, navigate and frequent the Ports, Places and Territories, to the end to transact his business, where, and in what manner, he shall judge proper.

In which we shall be willingly indebted.

(Signed)

SAMUEL BISHOP, *Mayor.*”

The clearance to which the above is appended is signed by George Washington and Edw. Randolph, and bears date of February 3, 1796. This style of sea letter was used till 1812.

CHAPTER LXXVI.

THE ANCIENT MARITIME INTERESTS OF NEW HAVEN—Continued.

THE MARITIME ENTERPRISE OF NEW HAVEN IN THE SOUTH SEAS—
THE SEALING SHIPS.

IN the decade which ended in 1806 there was witnessed in our city one very important maritime interest, which, in all probability, will never again exist in this place. At no time since the settlement of the town till the present has there been more enterprise or enthusiasm exhibited in any commercial adventure than in 1796, '97, '98 and '99, when were loaded, outfitted, and equipped, and sent on their long and weary journeys, the ships which formed "the New Haven South Sea Fleet." It was composed of fine, staunch, and for the day, large, full-rigged ships, the equals of any which sailed from American ports. Their commanders were the peers of any seamen who navigated the ocean. They were manned by American sailors, who were, for the most part, from our own town and county, and who, having shares in the adventures, felt that it was their own individual good for which they were to toil. There was scarcely one of them who did not look hopefully forward to the time when he should either command a ship or own a "snug" farm near New Haven.

The ships themselves were as fine as could be obtained, nearly all of them new. They were models of beauty, having lines and dimensions which attracted attention in whatever portion of the world they were observed.

As the entire fleet numbered less than twenty ships, I will give the names, dimensions and armaments of the most famous:

Neptune, Ship	350 tons,	20 guns.
Oneida, "	223 "	16 "
Hope, "	200 "	12 "
Sally, "	236 "	16 "
Betsy, "	265 "	20 "
Huron, "	230 "	20 "
Augusta, "	280 "	20 "
Triumph, "	305 "	20 "
Zephyr, "	330 "	12 "
Polly, Brig	210 "	6 "

Each of these vessels sailed from New Haven, circumnavigated the globe, and returned to our harbor in safety. The ships carried crews of about forty men and boys, also a surgeon, supercargo, carpenter, blacksmith and cooper; and, as before noted, armaments of six-pound guns, muskets, cutlasses, boarding pikes, etc.

The voyages which were made by these sealing ships were of long duration, generally from twenty to thirty months, and it reflects great credit upon the men who commanded the ships, when we are told that none of them lost his vessel, or with one exception, met with an accident.

The object of the adventure was to load the ships with sealskins in the South seas. These skins were sold at Canton, where the ships were laden with silks and teas, which were brought to New Haven.

Perhaps it may not be uninteresting to describe the *modus operandi* of the seal-

ing voyages from our port so many years ago. The ships, after leaving the sound, were placed on a course to terminate at the Falkland Islands, where they remained several days, or longer if necessary, and during this time the crews were recruited, and the vessels put in order to encounter the severe weather likely to be experienced in passing Cape Horn. Once beyond that stormy point, the ships were headed for the Saint Felix group of islands, the Gallapagoes, or even as far north as Nootka Sound. In the earlier days of the New Haven seal fishery, however, it was not often that the ships sailed north of the Saint Felix group.

The manner of taking seals at that period was this: The men who were detailed for the purpose watched near the sandy beach of the seal islands till the seals at the proper time of the tide had left the water and crawled up to the dry sand. After large numbers had left the water, the seal-takers, placing themselves between the animals and the lower edge of the beach, rushed upon them and dispatched them by a blow on the head. At Juan Fernandez, so many were killed at one tide by a company of men from the ship "Hope," of New Haven, that by actual count the skins numbered two thousand one hundred and forty-two.

No sooner were the animals killed, than the skins were taken off and sent to the ship, where, after "breaming," that is, removing the fat, which was used for fuel, they were salted and packed away in the hold of the vessel. In some of the voyages the ships, after a large number of skins had been taken, were headed for the Main, where the pelts were "sun-dried" on the beach. There was on the coast of Patagonia a tract of land nearly two miles in length, used by New Haven captains to dry the skins of seals taken in the Atlantic. It was known in the days of sealing by the name of "the New Haven Green."

When the ships were laden, after months of the tedious labor which we have described, a course was laid for the Sandwich Islands, which were then frequented by all ships crossing the Pacific. At those islands the crews of the ships were recruited, and thence a course was laid to Canton, where the skins was disposed of through the American factories, a cargo of tea and silk received, and to the joy of all on board, the ship was placed on the long-looked-for homeward course, which was eventually to end at Montauk Point.

Such a romance was there regarding those South Sea ships, which were "bound around the world," that very many of the young men of the town were lured to enrol themselves among the companies which manned the fleet, not only to add to their worldly store, but to gratify a desire to see foreign lands—to be able to say to their friends at home that they had been "round the Horn," and to "the place where Captain Cook was murdered," and such a voyage was, ninety years ago, something to boast of in New Haven, and none of the ships which left our port for the Pacific but carried representatives of the most respected families of this place. Those were the illustrious days of American ships and American seamen.

It was partly, if not in a great measure, owing to the fact that some twelve fine ships from New Haven had visited the Sandwich Islands, and the ports in China, before the close of the year 1804, which prompted that eminent English traveler, John Turnbull, to speak of American commerce in those islands as follows:

"The Americans in particular carry on a most active trade with the Sandwich Islands, supplying them with property at a very easy rate in exchange for their provisions, and unless I am deceived will do more than any others to exalt them to a singular degree of civilization. So far does American commerce exceed all previous attempts of former nations, that even the Dutch themselves sink under comparison.

"Scarcely is there a port of the world, scarcely an inlet in the most unknown sea, in which the commercial hive have not penetrated. The East Indies are open to them, and their flags are displayed in the seas of China, and it must be admitted, that their success is *merited* by their industry."

Among the names of the commanders of New Haven's East India fleet there is no one which ranks so high as that of Capt. Daniel Greene, who had the honor of being the first New Haven shipmaster that sailed his ship in the Pacific, and he likewise has the credit of having commanded the ship which made the most lucrative voyage ever recorded in New Haven. It was also, if I am not mistaken, the most profitable voyage of which there is any record in the State.

Born in Boston, Daniel Greene came to our town at an early age, and was soon employed on a vessel sailing to the West Indies. Success seems to have been his lot from the first, and before he became of age he commanded one of the largest ships sailing from our district.

In his thirtieth year he was placed in command of the ship "Neptune," and sailed for China, making, as before stated, the most profitable voyage as yet recorded in New Haven.

It was this same commander, who, on his return from Canton in the "Neptune," brought with him several curious Chinese paintings upon glass, which were generally of a patriotic or Masonic type. These so captivated the eyes of many of our ancient townsmen that several persons requested the captain, should he return to China, to bring them duplicates. Some, however, wishing alterations in the colors and figures, so perplexed the captain with their suggestions that he was obliged to call in a friend, who was an artist, and also a deacon in the church, to consult with him about his commissions. After the artist had carefully inspected several of the paintings, and given his opinion as to the posturing, coloring, and other particulars of those to be ordered, the captain quietly presented to the deacon's view two very elaborate pictures of a decidedly oriental type, saying: "Deacon, what suggestion as to the color of these?" The pure-minded deacon, more accustomed to criticise Amos Doolittle's patriotic engravings, was of course shocked. Closing his eyes and raising his hands in a horror-stricken manner, he exclaimed in a stentorian voice: "How would I color them? *Black! Black!!* Captain Greene! as *black* as black can be!"

After the sailing voyages were discontinued, Captain Greene made many voyages to the West Indies, and, while in command of the ship "Draper," was, after a long chase, overtaken and captured by a French frigate. His vessel and cargo were confiscated and sold at one of the French islands.

The captain was a rich man, and, during the War of 1812, when our commerce was so paralyzed, he invested extensively in lands in New Connecticut, intending to remain there, and pass his declining years in that new country. He did, however, that which has so many times been done by shipmasters, who have for a while retired from life at sea, and which has so often proved disastrous; he essayed to make "one voyage more," which, he said, "should be his last;" and, having made this last voyage, and returned to New Haven, he would, he said, take his family to Ohio (New Connecticut).

He sailed from our port soon after the blockade was raised, embarking from a little wharf which stood in front of his house, now the Harvey Hoadley residence in Water street. His vessel, called the "Grace," after a member of his family, was owned by him. His eldest son was his first officer, and the Spanish Main was their destination. A few days subsequent to the sailing of the ship the entire coast of New England was swept by a violent gale, and, as no tidings of Captain Greene were

ever received, it is supposed that his ship foundered during the tempest. A monument erected in memory of the father and the son is to be seen in the old burying-ground.

Other commanders of the sealing-ships were Caleb Brintnall, of the "Oneida," the "Triumph," and the "Zephyr;" John Hurlbut, of the "Oneida" on her second voyage to China; William Howell, of the "Betsy," and the "Draper;" Gilbert Totten, of the splendid ship "Constellation;" Amos Townsend, of the ships "Frances Ann," and "Clarissa;" Nathaniel Storer, of the ship "Sally;" James Ray, of the "Huron" and the "Hope;" all of whom were famous sea captains in their day and generation.

Of the many New Haven merchants who were interested in these voyages, the most prominent was Ebenezer Townsend, who, for more than half a century, was engaged in commercial undertakings from our port. Mr. Townsend was born here in 1742, and was interested at an early age in foreign commerce. For many years he was far the most extensive merchant in the city. His ships were the largest, his cargoes the most valuable, and, for many years in which he was a ship-owner, he was known as "the fortunate man." He had been so successful in his enterprises that when one of his friends remonstrated with him for risking so much property, as he did in sending his ship "Neptune," in 1796, to the South Seas, he replied: "*If all should be lost, I shall have plenty left.*" His commercial transactions for the time were very large and important, and his enterprise had never been surpassed by any of his townsmen. He it was who first sent his ship to the Pacific, and Daniel Greene was the commander.

In 1801 and 1802 Mr. Townsend sent his ships "Frances Ann" and "Clarissa" to the Spice Islands in the Indian Ocean. These ships brought their valuable cargoes of spices to our city, where they were unloaded and stored in the cellar of the "Broome House," or "Hoadley House," and in due time shipped to New York. The "Frances Ann" made such a prolonged voyage that Mr. Townsend had abandoned all hopes of ever again hearing of her. Late in the spring of 1803, a strange ship—she had been purchased in New York, and had never been in our port—was seen sailing up our harbor, causing great speculation among our citizens as to her character. After anchoring, midway between Long Wharf and Tomlinson's Bridge, Captain Townsend, with his supercargo, was rowed in a small boat from the ship to the Broome House. These officers reported to the owner, Mr. Ebenezer Townsend, the safe arrival of his ship from Batavia and Poulo Pinang, with a cargo of pepper, valued at over \$100,000, after a voyage of one hundred and ninety-five days.

Mr. Townsend was pecuniarily interested in many of the sealing ships besides the "Neptune." He not only sent ships to hunt for the *fur* seals, whose skins were to be taken to the Canton factories, but he also sent vessels to bring the skins of the *hair* seals to New Haven. One of his vessels, the "Polly," came early in 1803, from the Pacific, with 48,000 skins, which were sold to the tanners of the town and of the vicinity.

His cargoes from the West Indies and from European ports were many and valuable; and for several years the duties levied on cargoes brought in his ships far exceeded in value those paid by any other three commercial houses in the city, the "Derby Fishing Company" alone excepted.

After a long life of activity and enterprise, Mr. Townsend died at his residence in New Haven at the age of eighty-two years. His remains were interred in the old cemetery.

Others who were either owners of the ships, or of their cargoes, may be named,

for example, Thomas Atwater, Henry Dennison, Henry Trowbridge, Elias Shipman, Thaddeus Beecher, Henry Daggett, Ward Atwater, the Cowleses of Farmington, Thomas Painter of West Haven, Ebenezer Peck, Enos Monson, Phelps and Sanford, Kneeland Townsend, Elihu Mix, who died at Honolulu, in 1804, on board of the New Haven ship "Triumph," of which he was part owner and supercargo.

Memorable days in our town's history were those upon which the first few ships of the sealing fleet sailed from our port on their long and perilous voyages, as well as those on which they arrived after their protracted absence. In several instances nearly, if not quite, the entire business of the place was suspended, and a large portion of the population was at the wharf to witness the departure of the ships; to give their friends a good "send off"—and, afterwards, a "welcome home."

The most noted of these old voyages was that which Mr. Ebenezer Townsend's ship, the "Neptune," accomplished. She was a New Haven vessel, built at the Olive street shipyard, and, as before stated, commanded by Daniel Greene.

Of a burthen of 350 tons—a "Great Eastern" for the day—with an armament of twenty twelve-pounders, this ship carried for her crew, forty-five young, active and sturdy New Haven county men, a large portion of whom belonged to respectable families of the town and vicinity. One of them, Mr. Thomas Howell, had, but a few months previous to the sailing of the ship, been graduated at Yale College. He was a classmate of the late President Day and of Stephen Twining. Mr. Leverett Griswold was first officer; Mr. Driggs, of Middletown, surgeon; and Mr. Ebenezer Townsend, Jr., supercargo.

Amidst the cheering of the citizens and the firing of cannon, the sails of the "Neptune" were sheeted home, and with anchor weighed, the ship sailed down the harbor, through the Sound, and was soon in the open sea, where a course was laid for the Falkland Islands, which in due time were reached. She remained there two weeks, and then sailed for Cape Horn, which was soon doubled, and, for the first time, the Pacific was furrowed by the keel of a New Haven ship. Good fortune was met with at the seal islands in collecting skins; and at the island of Juan Fernandez, several men (of whom Thomas Howell was one) were left to collect and sun-dry seal skins in anticipation of the arrival of another ship, which the enterprising owner of the "Neptune" intended to send out the following year.

From the seal islands the ship was sailed to the Sandwich Islands and from thence to Canton, where the great price of three and one-half dollars each was obtained for the eighty thousand skins which the ship contained. Three months were required to discharge and reload the ship, and at the expiration of that time, the "Neptune," laden with tea, three thousand chests; nankeens, fifty-four thousand pieces, costing \$24,000; silks, a large quantity; and five hundred and forty-seven boxes of China ware, was placed upon the homeward course for New Haven, which port was safely reached after a passage of *six months and two days*, arriving here on the 14th of July, 1799.

The result of the voyage was most satisfactory, the profits astonishing even the shrewd projector himself.

For his share in the adventure, Mr. Townsend received *one hundred thousand dollars*, a vast sum in those days. The supercargo, son of the owner, received \$50,000, and all others who were interested had proportionate amounts. Never was a ship so heartily welcomed home as was the "Neptune" after her voyage of nearly thirty months.

Mr. Green, in his *Journal* of July 17, 1799, alluded to the voyage of the "Neptune" as follows:

"Last Thursday arrived the ship 'Neptune,' Captain Daniel Green, master, in six months from Canton.

"This ship is owned in New Haven and Hartford, and is richly laden with silks, teas and nankeens. We do not recollect to have observed more genial joy diffused among our citizens, than on the return of this ship with the captain and his crew after an absence of two years and eight months.

"We join in congratulations to the owners, who are by this event receiving the just rewards of honest enterprise; to friends and parents whose hearts are gladdened at the return of friends and sons from a long, tedious and hazardous voyage; and to our citizens at large, on this first arrival of so valuable an Indiaman.

"While we witness the general joy, we sincerely sympathize with the friends of Mr. Leverett Griswold, of this city, mate of the ship, who died on the homeward passage, a young man of very promising talents, aged twenty-three years."

In the same newspaper there appeared, a few days later, the following communication, which is interesting from the fact that it was penned a few months previous to the presidential election in 1800. In 1897, we should call it a "campaign document."

"MR. EDITOR:—The ship 'Neptune,' lately arrived from Canton, pays to the revenue of the United States about \$75,000 in duties.

"This sum is at least \$20,000 *more than the civil list tax of the whole State of Connecticut* for any *one year* within the last *ten years*.

"These duties arise on teas, silks and nankeens.

"No man is *obliged* to buy either of these articles, and, of course, no man is *compelled* to pay any part of this sum.

"Now, I beg leave to ask the farmers of our neighborhood, if they have any just reason to oppose a government which obtains its revenues from luxuries? On reflection, is it not a fact of importance, that a single ship should pay more taxes than the whole taxable property of Connecticut, which by our grand levy appears to be about six millions of dollars?

(Signed)

"A. B."

These initials, I imagine, are those of Abraham Bishop, the collector of the port at that period.

In the autumn of 1799, the "Neptune" again sailed on a voyage similar to the previous one. She returned in safety to our port on the 29th of June, 1801, and though the ship brought a cargo upon which duties amounting to \$35,000 were paid, the adventure was not pecuniarily successful, owing to the small price paid by the Chinese for the seal skins. The price received in 1798, for the first cargo, \$3.50, was by far the highest ever paid for skins from a New Haven ship. On the second voyage of the "Neptune" the seal skins, 77,000, were sold for less than one dollar each.

The first voyage of the "Neptune" having proved so remunerative, several ships were at once purchased and fitted out for sealing voyages.

In October, 1799, the "Oneida," commanded by Caleb Brintnall, sailed for the seal islands of China. From the latter country, she came to New Haven, arriving here June 17, 1801, bringing a cargo so valuable that a duty amounting to \$27,540 was laid upon it.

Soon after the departure of the "Oneida," another ship sailed. This was the "Betsy," and her commander was Captain William Howell. Ebenezer Townsend and Daniel Green owned the "Betsy," having purchased her in New York. She was absent from New Haven about two years, and brought home a valuable cargo of tea and silk, which paid a duty of \$44,135.74, the third largest ever paid in our district.

I may say here, that the largest amount of duty ever paid by a New Haven ship, was that of the brig "Ann," which arrived here from Liverpool soon after the close of the war in 1814. The lading of the brig, a cargo entirely composed of hardware, was consigned to merchants, some fifty in number, residing in every part of the State. The duty amounted to \$87,430.78. This is the largest on record at our custom house. The next in magnitude was the duty paid by the "Neptune," on her first cargo, \$75,000; the third, that paid on the cargo of the "Betsy," amounting, as before stated, to nearly \$45,000.

Besides the "Oneida" and the "Betsy," there were several other ships sent to the Pacific about the same period. They all returned in safety. This fact is highly creditable to the commanders, who, with imperfect charts and nautical instruments, not far in advance of Drake's astrolabe, found their way through almost unknown seas around the globe.

Some idea can be formed of the magnitude of the commercial intercourse existing at the time between New Haven and China, by knowing that in 1800 three ships, the "Huron," the "Hope," and the "Draper," paid into the depleted purse of Uncle Samuel over \$60,000 in duties. With the exception of those who were interested in the first voyage of the "Neptune," it appears that the before-named individual gained more by the several China adventures than did any one else.

On the 22d of May, 1800, there sailed from New Haven, bound for the seal islands, the ship "Sally," of two hundred and thirty-six tons and twenty four-pounders for an armament.

Commanded by Nathaniel Storer, the ship was laid on a course for the Pacific. After capturing 45,000 fur seals and 8,350 hair seals, she was sailed to China, where, owing to the immense number of seal skins, only eighty-seven and a-half cents each were received for those by the "Sally." This was a great disappointment to the outfitters, who had counted on receiving the same rates as those obtained by Capt. Green.

So small a sum was realized by the sale of the skins, that the master was obliged to make drafts at ruinous premiums upon the owners in New Haven, and also upon the Cowleses at Farmington, who were part owners. It is needless to say that the voyage was wholly unsuccessful.

I should have heretofore said that those expensive voyages were not undertaken by any one commercial house. On the contrary, very many houses and individuals had shares in the ships. Merchants in the large towns of the State had an interest in nearly every ship. Hartford, Wethersfield, Middletown, East Haddam, Farmington, Derby, Litchfield, Milford, Branford, Stratford, were largely interested in several of the earlier ships; so, too, were Providence and New London. Thirty-six merchants in different parts of the State were owners of the cargo of tea and silk brought home from Canton in 1801 by the ship "Sally." Of the cargo of the "Betsy" there were eleven owners, and of the other cargoes the ownership belonged to not a few persons.

This type of commerce was maintained with great vigor till 1806, and at intervals till the war with Great Britain in 1812. It cannot be said that the China voyages were on the whole remunerative. This was in the main owing to the fact that so many vessels were sent on sealing voyages from Salem, Providence and Boston, that the supply of sealskins became so great at Canton as to make a very low price only attainable. Furthermore, the seals in the Pacific were very nearly exterminated in consequence of the unceasing capturing of them by ships sent from New England ports.

That the results of the first voyages were not encouraging is manifest from

the fact that only two or three of the New Haven ships made a second voyage to China.

Before leaving the sealing voyages I would like to say a word of the last one made by a New Haven vessel. Shortly after the close of the War of 1812 there came to New Haven from Middletown, where she had just been launched, the beautiful ship "Zephyr," of three hundred and thirty tons burden, to be equipped for a sealing voyage. She was commanded by that veteran navigator, Caleb Brintnall, who made more voyages to the Pacific than any other New Haven ship-master of his day. Interested in the ship were several New Haven and Providence merchants, who were resolved to make one more attempt at sealing in the Pacific.

The "Zephyr" carried an armament of twelve twelve-pounders, besides two large swivel guns, muskets, pikes, etc.; and for company had thirty-seven young Connecticut men, a majority of whom had seen service in the privateers "Teazer," "Saucy Jake," "Sabine" and "Quinnipiack." These men had shares in the adventure, and were determined that if hard work, care and watchfulness could bring success to the voyage, these very desirable conditions should not be wanting.

Thoroughly equipped and outfitted, the "Zephyr" sailed from our port early in the morning of the 25th of October, 1815. A large concourse of citizens had assembled at the pier-head to witness her departure. From Montauk Point the ship held her course for the coast of Patagonia, and at one of the Falkland Islands she was placed in condition to encounter the severe Cape weather.

So rapidly did the "Zephyr" sail, that when off Cape Saint Roque, being chased by a swift French man-of-war, she made fourteen knots an hour by the log, with wind abeam, and ran the Frenchman out of sight.

Having entered the Pacific, the commander felt great disappointment in finding no seals at any of the usual seal islands, although he visited all of the localities where, in earlier years, so many seals had been found. He resolved, however, to find them, and sailed his ship to the North Pacific, carefully searching through the Gallapagos, the Boneto Islands, Guadeloupe, and the Gulf of California. His search was in vain. He met with no success.

On consulting with his officers, Captain Brintnall determined, as he said, to find seals if he had to search the Pacific from Cape Horn to the North Pole, and he placed his ship upon a course for Nootka Sound, then almost a *terra incognita*, to New Haven navigators at least.

A few days only had the "Zephyr" been sailing toward the north when she encountered a tempest whose severity exceeded anything ever experienced by those on board. After a vain effort to make headway against the gale, the ship was placed before it; and for nearly twenty-four hours the fury of the storm increased. Throughout the night and the following day the sea ran so high and the wind blew so violently, that it was perilous for the sailors to attempt to reach the yards. Sails were blown into ribbons. The sea poured into the cabin through the doors and broken deadlights, drenching the crew and making it impossible to keep a fire in the galleys. During the second night the gale continued to increase, and many of the crew gave themselves up for lost. To lighten the ship several of her guns, spars and casks were thrown overboard. The vessel was under bare poles, and no one could live on deck unless lashed there. In that almost unknown sea, this New Haven ship lay reeling, plunging, and half submerged in the volumes of water that filled the decks. Morning came at last, but with it no abatement of the tempest. The wind now veered to the north, caught the ship at an unfortunate moment, and practically dismasted her. In that dismal plight she remained until the following day. The storm

then abated ; the sea went down ; the sun came forth ; the wreck was partially cleared up ; the fires in the galleys were relighted ; jury masts were rigged ; old sails were bent upon them, and in this forlorn, crippled condition (the voyage to the north having been abandoned), the "Zephyr" was headed for the Sandwich Islands ; and in seventy-two days after the disaster, and thirteen and a half months after leaving New Haven, the "Zephyr," with her discouraged and exhausted company, dropped her anchor in Kealakealkua Bay, where Captain Cook had been murdered not many years before.

The ship was there refitted, and became once again the showy craft that had attracted so much attention when lying in our harbor. But she had now been absent nearly eighteen months and had earned not a dollar. The captain was desirous of retrieving the disastrous voyage, and made, therefore, what he considered a very advantageous arrangement with the king of the Sandwich Islands. The latter, a partially clothed savage, hired the "Zephyr" to cruise around his islands for one year, her master to rank as admiral ; and for this service he agreed to give a very handsome consideration. The contract was signed, and for twelve months the "Zephyr" was constantly cruising around the Islands. There were bright expectations on board ; for my venerable friend, to whom I am indebted for these details, and who was a lad on board of the "Zephyr," informs me, that the commander anticipated the receipt of a sum sufficiently large to mend a broken voyage, "but which," my friend adds, "never was mended." *

The savage violated his contract and paid the captain little or nothing for his arduous services throughout a whole year. This treatment of Captain Brintnall was a losing policy for the king, because many of the American ship-masters, who touched at the islands, refrained for several years from making the customary presents to him, being offended at his bad faith in his dealings with the captain of the "Zephyr."

When it became evident that no recompense was to be obtained from the king, the "Zephyr" was headed for Canton, where she had no funds wherewith to purchase a cargo for New Haven, and consequently a freight was taken for a European port ; and thence the ship sailed for Providence. She reached this latter place after a perilous passage and an absence of three years from America.

The voyage was a signal failure, a very large amount of money having been lost in the adventure. The seamen for their long and dangerous cruise received little or nothing. My respected informant tells me, that when presented with his account he found *himself* indebted to the ship five dollars ; but he was so desirous to reach home, that he "argued not ;" the debt was forgiven him ; and with his bag on his back, he started for New Haven on foot, reaching it in good time, and in a few weeks was again afloat. He has since, as owner and master of his ship, carried the American ensign at his mast-head into most of the principal ports of the world, and has done honor to his country, his State, and his native city of New Haven. With the voyage of the "Zephyr" ended all commercial intercourse between our city and China.

Several of the ships which had been employed in that interest fell into the hands of the French and English cruisers in West India waters, some were sold in New York, and the "Zephyr," of which we have spoken, was eventually employed as a whaler, and, not many years since, was seen at New Bedford in a good state of preservation.

* The chief of the Islands, at the time of Captain Brintnall's arrival, was fearing an attack from the warriors of a neighboring island. The reward promised to the captain of the "Zephyr" was sufficient sandal wood to load the ship. The quantity received was six and a half tons.

Of all the sturdy young men who composed the crews of those famous New Haven ships, I can learn of but two who are still living. They both reside in the town, highly esteemed and respected by all who know them.

It may be interesting to some persons to know that many pieces of blue and white china, as well as plain white, having the initials of the original owners, to be found in many of the old houses in New Haven county, were brought here by the officers and men who navigated the ships known as the old "New Haven China ships."

Somewhat related to the capture of seals, there was one other maritime interest of New Haven, to which I may briefly allude. In 1820 a number of merchants who were interested in foreign commerce, formed a company, though not incorporated, whose object was the prosecution of the whale fishery in the North Pacific. Two ships were purchased, the "Henry" and the "Thames," by name. They were outfitted and sent on whaling voyages in 1822. In the expectation that this enterprise would be successful, preparations were made for building other ships to be employed in the same manner. Large quantities of ship timber were brought for the purpose from the adjacent country and deposited where now are Mr. Benedict's coal-yards at the foot of Brewery street. The place was then known as Tomlinson's wharf.

Those who were pecuniarily interested in the adventure awaited the return of the two ships, which had been sent out as pioneers, before building others. At an earlier day than expected, the whaling ships appeared in our harbor, having met with such success in catching whales, that in a comparatively short time they were filled with cargoes of oil and whalebone, and, by remarkably favoring gales, were hastened home some months sooner than it was reasonably supposed that they would return. Unfortunately for the enterprise, when the ships arrived, the prices obtained for the oil and the bone were so low—in fact lower, almost, than ever before or since—that no remuneration was received. It becoming known, also, that large fleets of whaling ships were fitting out at New London, New Bedford and Stonington, and the New Haven company, "fearing that no whales would be left in the Pacific," abandoned the enterprise and sold the ships.

It was the New Haven whaler "Thames," Captain Crosby, that carried, on her way to the North Pacific, the second band of missionaries who left America for the Sandwich Islands.

The missionaries, some eighteen in number, including three South Sea Islanders who had been educated here, embarked from Tomlinson's wharf on the 19th of December, 1822, and after a safe and pleasant voyage reached the harbor of Owyhee (Hawaii).

Perhaps the day of the sailing of "the Greate Shippe," in 1645, was the only time in which our city has ever beheld such a manifestation of warm affection and kindly feeling as our people witnessed at the departure of these missionaries, who were leaving their country to toil through many years, and perhaps for life, in educating the inhabitants of those far off isles of the sea.

Nor were they sent away with benedictions only. The sum of \$1,354 was donated for the use of the missionaries after their landing. Abundant supplies of provisions and necessities were also placed in the ship for the mission families during the long and dangerous journey.

Retracing our steps to 1807, we find that the exports and imports of our district were yearly increasing in value. For several years about that period, the duties annually paid into the customs averaged \$150,000, and there departed annually from

the port fully one hundred foreign-bound vessels. The increase in the value of trade was apparent, in spite of the losses by seizure and confiscation of vessel property.

Closely related to this increase of trade were many important changes to be seen at that time in the city, which then contained a population of about six thousand souls. New streets were laid out and old ones widened and straightened. A contract was entered into whereby Long Wharf was to be made solid and continuous to the end. A short time previous, the Green had been enclosed by a "neat wooden fence." The "Derby Turnpike" was made, and so also was the turnpike built from Hartford, by using which travelers were saved the long journey by the Cheshire road, or "Long Lane," as it was then called. It was evident also from the manner of some of the more advanced and progressive members of the old Brick Church, that the structure which had stood since 1757 had nearly, if not quite, fulfilled its destiny, and was soon to give place to the edifice which we now see.

In 1807 was erected the first Methodist church in New Haven. It occupied the site of the present colored church in Temple street.

Many new brick buildings were erected, the sidewalks of the principal streets were paved, and on every hand were seen evidences of increasing wealth and culture.

CHAPTER LXXVII.

THE ANCIENT MARITIME INTERESTS OF NEW HAVEN—Continued.

THE COMMERCE OF NEW HAVEN AND THE UNITED STATES—EMBARGO.



ON the 7th of January, 1808, the foreign commercial interests of the entire country were not only paralyzed, but for the time being destroyed, by the passage of the act of Congress, of December 22, 1807, establishing an embargo, and by the instructions given to the officers of the revenue and of the navy under the authority of that act, by President Jefferson.

This enactment was so remarkable, and its consequences were so great and disastrous, as to make it desirable that it be here presented in full.

“AN ACT

LAYING AN EMBARGO ON ALL SHIPS AND VESSELS IN THE PORTS AND HARBORS OF THE UNITED STATES.

“Be it enacted by the Senate and House of Representatives of the United States of America, in Congress assembled, That an embargo be, and hereby is laid on all ships and vessels in the ports and places within the limits or jurisdiction of the United States, cleared or not cleared, bound to any foreign port or place; and that no clearance be furnished to any ship or vessel bound to such foreign port or place, except vessels under the immediate direction of the President of the United States; and that the President be authorized to give such instructions to the officers of the revenue, and of the navy and revenue cutters of the United States, as shall appear best adapted for carrying the same into full effect.

“*Provided*, That nothing herein contained shall be construed to prevent the departure of any foreign ship or vessel, either in ballast, or with the goods, wares, and merchandise on board such foreign ship or vessel when notified of this act.

“Sec. 2. And be it further enacted, That during the continuance of this act, no registered or sea-letter vessel, having on board goods, wares, and merchandise, shall be allowed to depart

from one port of the United States to another within the same, unless the master, owner, consignee, or factor of such vessel shall first give bond with one or more sureties to the collector of the district from which she is bound to depart, in a sum of double the value of the vessel and cargo, that the said goods, wares, and merchandise shall be relanded in some port of the United States, danger of the seas excepted; which bond, and also a certificate from the collector where the same goods, wares and merchandise may be relanded, shall by the collectors respectively be transmitted to the Secretary of the Treasury.

"All armed vessels possessing public commissions from any foreign power are not to be considered as liable to the embargo laid by this act.

"J. B. VARNUM,

"*Speaker of the House of Representatives.*

"GEO. CLINTON,

"*Vice-President of the United States and President of the Senate.*

"*December, 1807.*

"TH. JEFFERSON."

"*Approved.*"

This embargo was chiefly intended to be a retaliation upon Great Britain for the repeated insults given to American vessels by British ships of war. These indignities consisted mainly in the searching of our vessels, examining the ships' papers, and compelling the master of every ship to answer *any* question concerning his cargo and destination which might be put to him by the boarding officer.

The chief grievance, however, was the impressment of American seamen to serve on British ships of war; and to such an extent was this outrage practiced that, in September, 1808, there were forcibly detained in the British navy *three thousand two hundred and eighteen American seamen*. The navy of the United States at the same period employed but *one thousand four hundred and twenty-five seamen*, or less than one-half the number of those who were impressed by the British.

The embargo, be it remembered, was laid upon all ships and vessels in the ports of the United States bound for any foreign port or place, and the act forbade the issuing of clearances to all ships except those under the direction of the President of the United States. The President was furthermore authorized to give such instructions to officers of the revenue as should appear to be best adapted to carry the law into effect.

The orders immediately given were so stringent that not even a small coasting vessel was allowed to leave port without having an endorsement of the collector and naval officer upon its papers. More effectually to carry out the President's instructions, it became necessary to guard every port and harbor of importance with armed boats, which were known as "Jefferson's Gun-Boats," and were supposed to maintain a vigilant watch for vessels whose masters were ready to go to sea, should opportunity offer. Whether the gun-boats always kept a strict lookout off our harbor can be ascertained by consulting some of the ancient log-books to be seen in the archives of our own Historical Society.

One of the most important results which the supporters of the act hoped to see, as a consequence of the embargo, was great distress and suffering in the British West Indies, caused by the absence of American breadstuffs and provisions. It was thought that to avert such dire results, England would willingly accede to the demands made by the United States, "that American vessels should forever be exempt from search by British cruisers."

In that expectation, however, the friends of the act were disappointed. The British islands, though greatly inconvenienced, and obliged to pay exorbitant rates for food, were supplied from Europe and Canada with many of the articles usually im-

ported from America ; and throughout the islands generally, were cultivated in immense quantities the cereals indigenous to the soil.

More than this was done by the British islanders, who saw distress, and perhaps famine, likely to ensue from a protracted embargo in the ports of the United States on food-laden ships. All American vessels which were in the various islands were at once embargoed and forced to land their cargoes. In Barbados, when the news of our embargo was received in that place, there were lying in the bay thirty-one American vessels laden with flour and grain, waiting for an opportunity to force the blockade of the French islands. They were all compelled to discharge their cargoes, which were sold, of course, for the benefit of their owners.

The inducements held out by the English islands to tempt the violation of the embargo, were both numerous and enticing. Proclamations issued by the colonial governors were sent to Canada, and thence widely distributed in the sea-port towns of the United States. These documents gave our people notice of the temporary abolition of all duties on produce of the United States, and cargoes were landed free of all cost to the vessels taking them to the islands. Premiums were offered to those shipmasters who should bring the largest cargoes of breadstuffs ; all charges and expenses usually incurred by ships visiting foreign ports were, for the time, to be borne by the several island governments ; in fine, nothing was left undone which could induce the American merchants to send out their ships to the West Indies.

Nor did the British government do less than the colonial authorities. Orders were transmitted to all commanders of His Majesty's ships directing them not to molest or interrupt in any way or manner American vessels laden with provisions, lumber or cattle, bound for any British port ; and particular instructions were issued to all officers of His Majesty's customs throughout the West Indies and South America, requiring them to overlook the fact should clearances and registers of American vessels be irregular.

These great and manifold inducements naturally made not a few shipowners eager to avail themselves of the advantages arising from the fabulous prices to be obtained in the West Indies for American cereals.

In the early days of the embargo many vessels from northern ports succeeded in getting to sea, and two brigantines from our city, eluding the vigilance of the gunboats, reached the West Indies, and at Saint Christopher's realized upon their cargo five hundred and fifty per cent. Their cargoes were composed of flour, and they sold it at \$54 *per barrel*.

Such instances were rare. Those two were in fact the only ones in which New Haven capital was interested, and the commerce of the port in general, with the rest of the sea-ports of the country, was practically dead. From Maine to Maryland prevailed one feeling of discontent and indignation, particularly so in New York and New England, where many of the inhabitants witnessed the main source of their livelihood cut off, meaning to thousands nothing less than penury and starvation.

In July, 1808, there were lying embargoed in the port of New York six hundred and sixty-six American vessels ; in Boston, three hundred and ten ; in Baltimore, three hundred and thirty-five ; in Philadelphia, one hundred and ninety ; in Portland, one hundred and eighty-seven ; in Newburyport, one hundred and sixty ; and in New Haven, seventy-eight.

Here in our own city great distress was immediately observed. " Month after month passed away, and not a sail was allowed to be unfurled in our lately cheerful and busy harbor. Not a ship was to be seen discharging her cargo at our wharves. The stores and warehouses of our merchants were well-nigh deserted and empty.

Their merchandise was valueless. The cheerful voice of the sailor and the hammer of the shipwright were to be heard no more. Their figures, as they scowled upon the wharves, or wandered listlessly along the streets, told too plainly that their occupation was at an end."

In Salem, with a population of nine thousand five hundred and sixty persons, twelve hundred were daily fed at the public soup-house. The same thing was done in Portland, and also in our own town.

There were very few citizens of New Haven, in 1807, who were not either directly or indirectly dependent upon foreign commerce. Above one hundred shipwrights were living in the place. Engaged in trade with foreign lands were eighty-two vessels. Thirty-two commercial houses in foreign trade were to be seen on Long Wharf and State street. With these facts before us, it is no difficult matter to imagine the inconvenience, annoyance, and even suffering, caused by the embargo, or, as it was frequently called in the New Haven vernacular, "*the dambargo*."

It is not surprising that some of the merchants of our city in those days, having little or no business wherewith to occupy themselves, fell into evil ways—one of which was to visit too frequently "J. K. L."

In 1791, the brig "Nancy" brought from Saint Croix, to Atwater and Daggett, a cargo of rum, for one puncheon of which no owner ever appeared, and in an upper story of the warehouse it had been fining and mellowing for nearly twenty years. The cask was marked in large black letters, "J. K. L." When the embargo put a stop to the importation of the principal ingredient of their toddy, the old merchants bethought themselves of the ownerless puncheon of rum, and during the embargo repeated visits were made to the warehouse loft. "Let us go for some 'J. K. L.,'" became the usual post-prandial expression of several of those benighted men. So constant and faithful were the visits to "J. K. L." by that band of embargoed merchants, that, when the repeal of the act was effected, and some of the more abstemious ones proposed to drink the health of the American Congress in Santa Cruz rum, a visit to the puncheon revealed the sad fact that it was standing "on end and empty."

It is doubtful whether in any part of the country there was more indignation caused by the embargo act than in New Haven. There was a town meeting held in our city, August 20, 1808, of which Elizur Goodrich was moderator. It was unanimously voted, that Elias Shipman, Noah Webster, David Daggett, Jonathan Ingersoll and Thomas Painter, Esquires, be a committee to prepare an address to Thomas Jefferson, President of the United States, praying for a modification or suspension of the embargo laws. In accordance with the vote of the meeting, an address to the President was prepared by the committee. It was a long and earnest appeal, in which were clearly set forth the evils arising from the embargo. The document closed as follows:

"In every view of this subject, your memorialists, conceive a continuance of the Embargo to be as distressing as it is impolitic, and far more injurious to our own people than to any other Nation. We therefore request that—in pursuance of the Power vested in you as President of the United States by an act of Congress for that purpose—the operations of the several laws imposing an Embargo may be *immediately suspended*."

On the 10th of September came a reply from Mr. Jefferson, saying that, "no one knew better than himself of the inconvenience caused by the embargo, but that the legislature alone could prescribe the course to be pursued."

In the autumn of the year 1808, the shipowners of our town, seeing no indica-

tions that the embargo would be removed, dismantled their ships and laid them up to await the advent of more propitious times.

Many of the seamen who were in the habit of sailing from our port, journeyed to the British provinces, where they remained till the embargo was removed, while others, who had their families to care for, were forced to remain and subsist upon the public charities.

The newspapers of that day often contained vigorous lampoons regarding the embargo. One of them will bear repetition here. It appeared in the *Brattleborough Witness*, September 1, 1808:

“EMBARGO.

“Why is the embargo intended by Mr. Jefferson to be like a circle?

“Because it is to have no end.

“Why is the embargo like a poor portrait painter?

“Because it makes many bad looking faces.

“Why is the embargo like the jaw bone of an ass?

“Because it has slain its thousands.

“Why is the embargo like the fifth wheel of a coach?

“Because it is of no manner of use.

“Why is the embargo like couching for the cataract?

“Because it makes those who were before partially blind to see clearly.

“Why is the embargo like an incurable sore finger?

“Because it ought to be taken off.

“Why is the embargo like red wine when we have no white?

“Because it makes us stick to Port.

“Why is the embargo like the sting of ingratitude?

“Because it is painful to bear.

“Why is the embargo like good strong coffee?

“Because Bonaparte is remarkably fond of it.

“LASTLY,

“Why is the embargo like French influence in the United States Cabinet?

“Because unless speedily removed it will be the ruin of AMERICA.”

The anniversary of the passage of the embargo act was observed in New Haven by many tokens of mourning and despondency. At 7 o'clock on that day the flags of all the shipping were displayed at half mast, and at 9 o'clock a procession was formed in Fleet street, comprising all classes and grades of society. It was led by a young man clad in mourning and mounted on a black horse. He carried in his hand a banner on which was inscribed the legend:

“Bonaparte—‘O-grab-me.’”

The motto presents, in the latter part of the line, the anagram of embargo.

Following the leader were many seamen neatly dressed, with crape attached to their left arms. Six of them bore a boat, the flag of which was at half mast, shrouded in mourning, being emblematical of the Constitution of the United States.

Throngs of people joined the procession as it passed through State and Chapel streets to the Green. When the head of the column reached the Green, it was estimated that 1400 persons were in line, being nearly one-fourth of the population of the city. After an address had been delivered to them, the people were dismissed, and those who had taken part in the procession quietly returned to their homes.

At the session of the General Assembly in October, 1808, Governor Trumbull reflected in severe terms on the act of embargo, and said, in his address to the House

"However pressed by existing circumstances, the people of this state, I believe, have been quite as observant of the embargo regulations as any of our neighbors.

"The efficacy of this experiment has been as fairly tested within our jurisdiction as perhaps any part of the United States; but amidst heavy and severe injuries to our trade, and many privations to our citizens, we have yet to learn what are to be its benefits in a rational point of view.

"I say this not to weaken your confidence in the laws of the Union, nor to discourage you in their full and fair observance. So long as the embargo laws exist, it is our duty faithfully and patiently to obey them."

Resolutions were passed during that session on this subject. They called on Congress in powerful language, and urged that body to repeal a law which "upon cool and impartial reflection appears to this Assembly to be unnecessary and grievous."

Mr. Hillhouse, at the time our representative at Washington, said in his speech on this topic before the House: "My people are not *bound to submit*, and, in my opinion, they *will not submit* to such laws."

Early in 1809 the President issued his proclamation declaring the embargo at an end, but that an act of non-intercourse would take effect on the 20th of May, 1809, by which British and French vessels would be forbidden to use the American ports, and until that time the laws of the embargo acts were to be observed.

This news was received in our city with every demonstration of joy, and at a splendid subscription dinner spread in Mr. Butler's famous tavern, the following toasts were drunk:

"The state of Connecticut. Here's to the ship that has weathered the storm.

"New England. The ocean is her birthright; her sons will never flee to the mountains.

"Non-intercourse, the embargo, and non importation acts. The shells of these terrapins are cracked.

"American sailors. They were never made for weavers nor land-lubbers."

Mr. Green, in his newspaper of June 15th, wrote:

"The 10th of June *was* a day of unusual animation in this city.

"On this auspicious day, commerce was partially relieved of its oppressive shackles, and disburdened of its most embarrassing regulations.

"The enterprising merchant and adventurous navigator, companions in the chances and experiments of fortune, are now at liberty to embark upon an element, the free use and benefits of which the great Creator designed for the commercial and civilized world. Unrestrained by that fallacious policy which proscribed a meritorious and prosperous class of citizens, and prohibited their right to the ocean, trade, it is hoped, will now resume its accustomed channels, and the American mariner become a joint proprietor of the seas.

"The schemes of enterprise, blessed with the auspices of Heaven, will feed the mouth of labor with that precious bread for which it has pined, and diffuse its blessings through the nation.

"*Poor Jack*, confiding in that mysterious and protecting Power who sits aloft, and protected by the government, will quit his *dignified* retirement to ride upon the waves, cheered with the prospect of employ, and content with his hardy fare and overflowing can.

"The husbandman will carol at the plow, and cultivate his field with joy, pleased with the hopes that the surplus productions of his labor will command a ready market; and the mechanic, as he plies the tools of his art, will find a cure for the spleen of discouragement, when his hands are no longer paralyzed by the poverty of the times.

"Should respect to commerce and regard to the prosperity of New England deter the government from any future acts of national suicide, this section of the Union will cheerfully contribute to the support of its dignity, and pride itself in being foremost in the maintenance of its rights and permanency."

Now that the dreaded embargo was removed, although the maritime interests of our town still suffered from the non-intercourse act, the old-time enterprise of New Haven again asserted itself, and the wheels of industry were once more set in motion. All was bustle and activity. Vessels which, for nearly eighteen months, had been "laid up," were loosed from their moorings, taken to the wharves, and outfitted for sea. The ropewalks, of which there were four in the town, were busy at work; and the numerous mechanical trades, which are so intimately allied to navigation, were again in the enjoyment of occupation. From the adjoining country-towns came great numbers of farmers with their staples, which were speedily purchased.

So quickly did the New Haven men improve their opportunity that, in one month after the embargo was annulled, thirty-three vessels had been refitted, loaded and sent to the Dutch and Swedish islands of the Caribbean; from which place were sent, in fast-sailing British and French schooners, articles designed for the Windward Islands. From that period till the war with Great Britain in 1812, a constant and rapid appreciation in the maritime interests of our city was to be observed. We can have no stronger evidence of the enterprise and activity of the old New Haven merchants than the fact, that in a few months after the embargoed vessels were released, the American ensign was flying from the gaffs of New Haven vessels in the ports of Saint Petersburg, Cronstadt, Hamburg, Lisbon, Cadiz, Bordeaux, Liverpool, London, Cork, Mogadore, along the Spanish Main, and in the far-distant ports of Batavia, Canton and Polo Penang. Some of the vessels visiting these ports were employed in carrying freight for New York merchants; but far the greater number were making their weary voyages under the direction of their owners in New Haven.

Throughout New England, a bitter feeling was still exhibited towards the government at the non-repeal of the non-intercourse and non-importation acts. By these acts no vessel could receive clearance papers for a British West India colony; and by the latter act, a British vessel was not allowed to bring the produce of the islands to an American port.

Great Britain, of course, retaliated, and enacted laws, that no American ships at any of the British islands or colonies in the West Indies should receive the cargoes of the produce of these places, unless they came laden with the produce of the United States.

I doubt whether any more logical remark was made regarding the hurtfulness of the non-intercourse act, than one made at the old Albany tavern in June, 1809.

"Have you heard the news?" asked a Democrat in the general room of the tavern.

"What news?" inquired a bystander.

"Why, the Congress has repealed the embargo laws," said the first speaker.

"Yes," replied a young man in a distant part of the room, "in the same way that my father used to relieve his poor, old horse. When the *fetters* galled him on *one* side he took them off and put them on *the other*."

On the 10th of May, 1810, the non-intercourse act was repealed, and about the same time the non-importation act ceased to be enforced. The British government, in the spirit of mutual concession, forthwith made new regulations, which were uninterrupted till the war of 1812.

CHAPTER LXXVIII.

THE ANCIENT MARITIME INTERESTS OF NEW HAVEN—Continued.

THE MARITIME INTERESTS OF NEW HAVEN IN RELATION TO THE WAR WITH GREAT BRITAIN.

THE repeal of the non-intercourse and non-importation acts permitted commerce with the Windward Islands to renew its activity, subject to no restrictions and interdiction, and many of the New Haven ships were sent to those ports. We are told that great energy was displayed in the effort to determine which of the numerous vessels in our harbor should be the first to proceed to sea under the new regime in commercial affairs.

The ship "Julius Cæsar" was the fortunate vessel, followed in three hours by the barque "Maria," commanded by the late Captain James Goodrich.

From that period till the declaration of war with Great Britain, a very extensive commerce was maintained with all of the British colonies in the West Indies. During the two years following the repeal of the restrictive and burdensome acts, those who had a part in the foreign trade of New Haven were generally successful. Many shipowners, however, tempted by the enormously high prices paid for American productions in the blockaded ports of the French West Indies, endeavored, under cover of night, to run through the blockading squadron. In not a few instances they succeeded; but they often paid a heavy penalty by the capture and confiscation of their vessels.

Many of our merchants also lost their vessels by capture while trying to enter the Dutch ports of the West Indies, which were likewise blockaded. This was the fate of the fine new brigs, "Mercury," "Julia" and "Argo," of this port, all of which were captured the same day by the same frigate, sent to Jamaica and confiscated, entailing heavy losses upon the owners.

In November, 1810, the long-desired news reached the United States that the French government had revoked the Berlin and Milan decree, under which obnoxious law so many New Haven vessels had come to grief. From this period till the declaration of war with Great Britain, a satisfactory increase was visible in the foreign commerce of New Haven.

Many new vessels were built, others were purchased at other ports and brought here for registry, all being of larger dimensions than those of former days.

It was about this time that the "Derby Fishing Company" was in its most prosperous condition.

This company (famous in its day) was organized in Hull's tavern, in Derby, January 15, 1807. It carried on a very extensive fishing business on the Newfoundland Banks, taking the fish to Europe and the West Indies, and bringing home the products of those respective countries. Several of its vessels sailed regularly to Lisbon and ports in the Mediterranean, bringing home to New Haven cargoes of wine, oil and salt. The company used the latter in preparing its fish.

The capital subscribed at the first meeting was, according to the act of incorporation, fifty thousand dollars. It was soon increased, and made two hundred thousand, the increase being allotted in shares of twenty-five dollars each.

The transactions of the company were, for that period, immense; and the duties

which it paid during several years were equal to those paid by the three largest commercial houses of the port.

So extensive were its business transactions, that at one time a chest of specie, which was brought to Derby, required eight men to take it from the wagon and place it in the vault of the Derby bank. The bank building was the brick edifice still standing at Derby Narrows.

The newspapers of that day often spoke in high praise of the fine vessels owned by the company. Among these vessels were the "Victor," "Naugatuck" (which disappeared at sea), "Charles," "Housatonic," "Lark," "Sally," "Patriot," "Derby," and "Keziah." This latter ship in 1810 brought sixty Irish emigrants to New Haven direct from Belfast.

The stock of the company was owned in New Haven and Derby; and at its inception several of the most eminent merchants of the town were directors, Mr. Ebenezer Townsend being one of the most prominent.

After a few years of prosperity, the tide ebbed. Disasters overtook the company; several of its ships were lost at sea; others were captured and sold by the British and French admiralty orders; men to whom goods had been sold could not pay for them; and finally, in the summer of 1815, the company failed and made a disastrous ending.*

The "Eagle Bank" was organized about this period, January 1, 1812. The books were opened for subscription at John Clarke's tavern, giving a generous public an opportunity to take five thousand shares at one hundred dollars each. The bank at once began business in the store next west of the New Haven Bank.

The first installment paid upon the stock was \$15 per share, and this sum was \$15 more than the stockholders *eventually* received for each share. Imprudent loaning of money and general mismanagement ruined the institution after a brief period of existence.

On the 4th of April, 1812, an embargo was laid by Mr. Madison upon all vessels for ninety days. All ships were forbidden to sail for a foreign port under a penalty of \$20,000. This embargo was soon followed by the first rumors that war was probable between the United States and Great Britain. The commercial men of New Haven were among the earliest of American merchants to take the alarm. They saw what a dearth and scarcity of imported goods would ensue in case of a war with England, and at once ordered their ships home with such cargoes as could be procured at the ports where they chanced to be.

Even so recently as 1812 the manufacturing interest of the United States was in its infancy; and manufactures in New Haven were almost unknown. It was necessary to import from Europe many articles which are now manufactured in nearly every village of New England.

In 1810 the most important manufactured articles in New Haven were:

Linen	10,300 yards.
Cotton	331 "
Woollen	1,581 "

To New Haven, as I have said, came large and valuable cargoes of goods of every description, particularly of hardware and dry-goods. One enterprising merchant, doubtless foreseeing what would be the probable requirement of a large

* During the first few years of the company's existence, the directors voted the president a salary of \$1,500 a year. The last year their vote made it six and one-quarter cents.

portion of his townsmen (in case they should be rendered idle by the expected war), imported in his ninety-ton brig, from Saint Martin's, a cargo consisting of but two articles—gin and sugar.

One cargo of hardware and iron, imported into New Haven by the ship "Ann," paid the United States a duty of \$87,431. It was a handsome sum, the largest amount of duty, if I mistake not, ever paid on the cargo of a single vessel in the history of this port. This particular cargo was brought to no less than forty-six consignees who were living in different sections of the State.

From the many West Indian ports the New Haven vessels hastened home, bringing rich and valuable cargoes.

At last, on the 19th of June, 1812, President Madison issued his proclamation, in which he stated the many grievances, indignities, and insults that the United States had received from Great Britain, and declared that war existed between the respective countries. He called upon all good citizens, and urged, as they loved their country, as they valued the precious heritage derived from the virtue and valor of their fathers, as they felt the wrongs which had been forced upon the country, the last resort of injured nations, and as they consulted the best means under the blessings of Divine Providence to abridge the calamities of war, that they would exert themselves to preserve order, to promote concord, to maintain the authority of the laws, and to support and encourage all measures which might be adopted by the constituted authorities for obtaining a speedy, a just, and an honorable peace.

This particular appeal to the country was coolly received throughout New England, and particularly so in Connecticut.

On the 2d of July in that year, Governor Strong, of Massachusetts, issued a proclamation setting apart the 23d day of the same month as a day of fasting and prayer, that the war and its terrible calamities might be averted.

This example was followed by the governors of most of the New England States, and of New York and Pennsylvania.

In our own State, a feeling inimical and hostile to the general government was engendered. The several embargo and non-intercourse acts had caused the merchants and shipowners severe trials in their commercial pursuits, and now that war was to be added to the list they had reason for solicitude and dread when they feared that a repetition of the disasters of the early colonists was about to visit them.

A few only of the New Haven shipowners ventured to send their vessels away from their moorings in and about the harbor. Some, however, ran the risk of capture by the British cruisers, and found at the French ports in the West Indies a ready sale for their cargoes. The shipowners generally dismantled their vessels and took them up Dragon river, some of the smallest being towed as far as North Haven, where they remained until the close of the war.

In consequence of these reasonable precautions many seafaring men were forthwith deprived of all means of supporting themselves and their families. At that period there were by count over six hundred seamen living in New Haven. A large part of these immediately entered the navy; others shipped in the privateers then fitting out here and elsewhere; many formed themselves into a company, which was known as the "Ring Bolt Guard," and which did good service in assisting to erect the rude fortifications on Beacon Hill. They also had charge of the Block House, which stood at the extreme end of the pier. Others were employed on the gunboats which at night patrolled the lower portion of our harbor to prevent the patriotic citizens of our town from carrying supplies to the British squadron employed in blockading the Sound at its entrance.

Very few of those who visit the ruins of the old fort on Beacon Hill have any idea of the great interest which its erection created in New Haven and the surrounding villages. In our own town, those who were unable to give their days' work sent substitutes. The carpenters of the city spent their day there in a body. So, too, did the masons, blacksmiths, shipwrights, sailmakers, etc. From the neighboring towns came large delegations, sometimes camping on the hillside and remaining two or more days. From Cheshire came Col. Hull at the head of one hundred and thirty men, who spent three days at the work. When they passed through the city, they stopped for a short time on the Green, where they were saluted with the discharge of cannon and refreshments were served to them. On one day came seventy-five sturdy farmers from North Haven, under the direction of Dr. Trumbull, the historian of our State, then in his seventy-eighth year. Joseph Whiting came with the same number of men from the town of Hampden, and large delegations came from Branford, Naugatuck, Derby, and as far up the valley as Watertown.

Soon after the establishment of the blockade, a very complete code of signals was used between this fortification, Fort Hale, and the Block House on the pier; and all movements of the enemy's ships and tenders were at once signaled to the city.

No sooner had war been declared than the cruisers and privateers of both nations swarmed on our coast; and within the first three months of our war, no fewer than one hundred and eighty-five American vessels of all descriptions had been taken by the British. Of this number

109 were sent to Halifax and Bermuda.
22 were burnt at sea.
14 were retaken by the Americans.
33 were released.
7 were lost at sea.

Of the whole number, four only hailed from New Haven.

It is a singular coincidence that there were, during the same period, one hundred and eighty-five British vessels also captured by our countrymen. Of these, one hundred and sixteen were sent into American ports, some of them representing large amounts of money.

No history or sketch of the maritime interests of New Haven would be faithfully narrated if the story of our privateers were left untold. Their enterprise, skill and courage must be recorded as a memorial for coming generations. I regret, however, that I am forced to write that our privateersmen came home poorer than they went out.

There were several privateers that sailed from New Haven. Among them were, the "Quinnipiack," "Saucy Talk," "New Broom," "Teazer," "Wasp," and "Actress." The "New Broom" was commanded by Israel Bishop, of New Haven, and was captured by the "Somerset," and sent in to New York.

I must tell the story of the "Actress." She was a fine, fast-sailing sloop of sixty tons, and had for a crew forty-two young, able-bodied New Haven county men, every one of whom was anxious to make his fortune by privateering. For an armament the sloop carried eight small guns, with the usual assortment of small arms, cutlasses, boarding-pikes, etc.

The commander of the "Actress" was John Lumsden, an Englishman by birth, but a naturalized American. He was an able seaman, and had commanded several of the best New Haven ships. His officers were experienced sailors; and, thus appointed, she sailed from Long Wharf on the evening of the 11th of July, 1812,

"on a cruise." Reaching the open sea early next morning, everything on board the privateer was put into ship-shape order, and a six weeks' cruise agreed upon. Sharp and anxious eyes scanned the horizon, for a reward of \$50 was promised to the man who should first descry a vessel that should prove to be a "Britisher." Nothing, however, was seen for several days, and the ship's company began to think privateering slow work, and to long for their farms, when, to the joy of all, at daybreak, July 19th, on the northern edge of the Gulf Stream, a man on the foretopmast-rigging cried out: "Sail ho!!!" with the singular prolongation of sound that no landsman can imitate.

"Where away?" bawled the officer in charge of the deck.

"A mile to lu'ard," was the reply, and then came the welcome words, "and a Britisher, too."

True it was. In a few moments the mist was lifted, and less than a mile to the leeward of the privateer lay a huge British ship, to all appearances a merchantman. There she lay, with all her three topsails mast-headed, waiting for the morning breeze to spring up. From the fact that the topsails were "mast-headed," *i. e.*, hauled up to the head of the topmast, the privateer's men accepted it as a sure sign that the stranger was a merchant vessel, and her capture was certain. There was on board the sloop a great contrast to the dullness of the previous days. Muskets, cutlasses and boarding-pikes were brought on deck, cleaned and put in order; the little eight-pounders were swabbed out, loaded, and a supply of powder and shot placed near them. Aboard the "Actress" excitement and bustle were everywhere from stem to stern.

I am told that when the commander first saw the ship, he was in the ordinary costume of a New Haven privateersman, namely, a tarpaulin hat, red shirt, and a pair of blue trousers "cat-harpinned at the knee." When he was satisfied that a prize was soon to fall into his hands, he retired to his cabin to array himself in a becoming manner, and shortly afterwards appeared on his quarter deck clad in a blue suit with red facings, and a cocked hat, all of which were loaned him by a Foxon militia captain.

Sword by his side and speaking trumpet under his arm, the doughty sailor trod his weather deck, and after feasting his eyes for several minutes upon the Britisher, he gave his helmsman orders to put up the wheel. Forthwith the "Actress," with her two score valiant New Haveners, bore down upon the stranger; and so certain was Commander Lumsden and his crew of securing the prize, that a crew of eighteen men were immediately told off to carry the ship into New London, if possible; but into Boston at all hazards.

All hands judged the helpless Englishman to be a London tea-ship from Canton bound for Boston, and of course ignorant that war had been declared. They considered, therefore, that their fortunes were made, and that lives of ease and luxury awaited them at home.

Just before the "Actress" left Long Wharf, a friend of the commander and a part owner of the vessel had put on board a quarter cask of Jamaica rum, requesting that it should be drunk when the first prize should be captured. The captain and crew reckoning to a certainty that the Englishman was as good as captured, it was now proposed to drink the rum without further delay. The captain at first opposed it; but after the prize crew had explained to him, that if *they* were sent aboard the ship *they* would lose *their* share, he gave his consent. The cask was accordingly hoisted on deck and broached. The libations were heavy and frequent.

In the meantime the privateer had been gradually nearing the ship, apparently

unnoticed by the leviathan; and when within speaking distance, Captain Lumsden, in a voice tremulous with patriotic pride, hailed the ship.

In a moment the answer came back: "The 'Spartan' of London."

At the mention of this name a peculiar expression, we are told, was visible in the faces of many of the privateersmen, several pairs of jaws chattered, many knees knocked feelingly one against another, and cans half emptied were laid upon the deck (a rare proceeding in those days), because the "Spartan" was the well-known name of one of the fleet blockading New London.

It was the name of one that had caused a wholesome dread to be entertained all along our shores, from the Vineyard to Sandy Hook. She had for several months harried our coast, her vigilant commander boasting that nothing escaped him. Only two weeks previous to Captain Lumsden's experience with her, she had chased, captured, and sent into Halifax, the splendid American ship "Melanchthon," bound from Valparaiso to Boston with a cargo of copper ore valued at \$350,000.

Our privateersmen, however, soon recovered their courage and coolness, and reasoned: the "Spartan" is a frigate; this is a helpless Indiaman hailing from London. Captain Lumsden now drew himself up to his full height. In a manner as imposing as he could assume, he roared out, "Consider your ship a prize to the United States privateer 'Actress.' Send your papers aboard."

The commander of the "Spartan," who afterwards attained the highest post in the British navy, was in his way a wag, and he made answer, "Really, now, captain, would you ask that I, the commander of such a great ship as this, should strike my flag to such a little fellow as you?"

The reply from the New Haven Nelson, liberally garnished with his country's oaths, was, "Strike, or I'll fire into you."

A moment thereafter the shrill sound of a boatswain's whistle was heard, and suddenly, as if by magic, the ports on each side of the ship were triced up, exposing to view about sixty heavy guns. At the same time a cheery, wholesome voice said, "Come to our gangway, and we'll hoist you in."

Never was an order obeyed with more alacrity; and amidst the laughter of derision and scorn, the "Actress" was swept alongside. At eight A. M., with a prize crew of ten men, she was on her course for Halifax. Her valiant crew were divided. Half were transferred to the frigate and half left on board of the privateer. They all returned to New Haven some weeks afterwards, but without their cruiser.

The brig "Holkar" was fitted out in New York as a privateer; but Captain Rowland, unable to ship the crew (which he wished to be exclusively Americans) in New York, decided to come to New Haven to complete his ship's company, and on a Sunday morning in October, 1812, the brig dropped anchor in the Cove. She began at once a heavy cannonading from her battery of sixteen guns. The townspeople, especially those in the churches, were alarmed at the noise. Many feared that some of the enemy's ships had begun to destroy the town. The firing continued for more than two hours. Then the American ensign was displayed at the brig's masthead, and two boats, crowded with sailors, left her side and were pulled towards the pierhead. The lieutenant in charge of the party landed, and soon after notified the large crowd that had collected about him that the vessel at anchor was the privateer brig "Holkar," Commander Rowland, bound on a cruise through the West Indies and along the coast of Brazil, and had come here to ship the part of her crew yet lacking, namely, sixty men. Over one hundred were then on board. The lieutenant held forth the most flattering inducements to those who would ship, and he dwelt particularly upon the rich prizes which they would be sure to pick up off

Brazil. His arguments were so effective that on the first day more than twenty seamen enrolled themselves on board the "Holkar."

But there was a vigorous opposition in New Haven to the shipping of a privateer crew; for even at that early date many of our people were strong in their denunciation of privateering. However, the news that a privateer was recruiting in New Haven harbor soon reached the ears of the old sailors who were living in adjoining towns, and down to the wharf hastened these men of the sea, and by Thursday noon the sixty men desired were selected and shipped. Shortly afterwards there was another somewhat heavy cannonade, the brig sheeted home her topsails, and went down the Sound to sea.

This privateer made many captures, but none of great value. One of her prizes was the East Indiaman "Surrur," which the British government had chartered to convey two hundred convict women to Botany Bay. After a long chase, the "Surrur" struck her flag to the "Holkar," and a prize crew having been put on board, she was taken into St. Nicholas, Cape de Verde Islands, where, to the delight of the convicts, they were put on shore and their liberty given to them. A few weeks subsequently, the "Holkar" was overhauled by the seventy-four "Romulus," and, after a long and exciting chase, captured and sent to St. Helena. One of the crew who joined the privateer in our port was recently living, Augustus Willoughby, of Branford.

Several privateers were manned in large part by New Haven sailors, and did good service. This was the case with the "Sabine," whose crew were shipped here, though she sailed from New York. In the British Channel, off Dover, she fell in with the "Countess of Harcourt," five hundred and twenty tons, six heavy guns and ninety men. She took her, and this was the very Guineaman for whose capture the "Sabine" was especially fitted out. The prize was of great value—one of the most valuable captured during the war. The "Sabine" was the privateer, a part of whose crew rowed in a whaleboat the entire distance from Charleston, S. C., to New York.

Within a few months after war had been declared, the British Government saw the necessity of encouraging the exportation of American breadstuffs to its colonies in the West Indies and Bermuda, and accordingly transmitted orders to the admiral in command of the blockading fleet, who in turn sent the same to the several commanders, that neutral vessels might enter certain blockaded ports of the United States.

New Haven was one of the ports designated; and for several months, large numbers of Spanish, Swedish, Portuguese, Norwegian, and even Russian vessels crowded into our harbor. All of these ships, except a few from Lisbon, came from ports in the West Indies. Most of them, and their masters, rejoiced in unpronounceable foreign names; but there were many whose appearance indicated that they were British vessels, and even some, that they were American vessels, in disguise. This so called neutral trade was so extensive, that in one day, July 10, 1813, there were entered at this port no fewer than sixteen foreign ships, and there were cleared twenty.

A trade so important could not continue long without attracting the attention of the authorities at Washington, and on the 20th of July, 1813, the President, Mr. Madison, sent to the Senate and House of Representatives a confidential message, recommending that an embargo be immediately placed upon all vessels in the ports of the United States and bound on foreign voyages. In respect to this measure, the votes were cast in the House, and eighty were in favor and fifty against it. In the Senate it failed to pass, being favored by sixteen and opposed by eighteen votes.

Most of the New England people, and particularly those of Connecticut, considered this proposition an act of avowed hostility on the part of the President, who was accused of a desire to ruin what little trade there was left to their section of the country; and a feeling was at once aroused that led in due time to the adoption of the resolutions presented to the delegates from Massachusetts, Vermont, Rhode Island, Connecticut and New Hampshire, who met at Hartford, December 15, 1814, in the convention which has become known to history as "the Hartford Convention."

Among the amendments to the Constitution of the United States recommended by this convention one was, that "Congress shall not have the power to lay an embargo on ships or vessels belonging to citizens of the United States in the ports or harbors thereof for more than sixty days." Another was this: "Congress shall not have power, without the concurrence of two-thirds of both houses, to interdict the commercial intercourse between the United States and any foreign nation or the dependencies thereof."

The report of this convention, with the resolutions above stated, was, to quote from Hollister, "immediately published to the world, and, as was naturally to be expected, filled the whole country with excitement. Some hailed it with demonstrations of lively joy, and others with hisses of derision; some called it patriotic, others averred that it was treasonable; some made it their banner-cry, others were ready, under other banners, to go out and give battle to the men who dared to march under it."

The proceedings of the convention were at once approved by the Legislature of Massachusetts, but the prevailing sentiment of the Union was opposed to it. The convention had transacted its business with closed doors, and although, in doubtful times, the General Assembly of Connecticut had always done the same, and even the very convention that had adopted the Constitution of the United States had done the same, yet the delegates to the Hartford Convention were not allowed to plead these precedents in answer to the charge that "*secrecy was a badge of fraud.*"

Allusion had been made to this matter only for the purpose of showing to what extremities we had arrived in Connecticut when a State, ever prominent in its loyalty to the Union, could adopt and promulgate such sentiments as are to be observed in many of the resolutions passed by this convention, composed of so large a number of the eminent men of the several States that have been named.

Those from Connecticut were Chauncey Goodrich, James Hillhouse, John Treadwell, Zephaniah Swift, Nathaniel Smith, Calvin Goddard and Roger Minot Sherman.

I should have stated that several months previous to the convention at Hartford, Captain Oliver, of the frigate "Valiant," and commodore of the blockading squadron, sent word to New Haven by the skipper of a fishing smack, that "*there was no blockade of New Haven.*"

Encouraged by this message, several vessels were hastily fitted out and sent to sea; but, before they returned, Captain Oliver issued an order, declaring that the Sound would be in state of rigorous blockade after the 6th day of December—that is, four days later than the date of his sweeping order.

This rigorous blockade, together with the act of embargo passed by Congress, January 1, 1814, had the effect of entirely closing the harbor of New Haven to commercial enterprise. From that time till the close of the war, the foreign commerce of the port may be said to have scarcely existed, even in name.

It was at this period that the whole country was admiring the courage and seamanship of Isaac Hull, a New Haven sailor. He was born and bred in the neighboring town of Derby in this county. He entered at an early age the profes-

sion which he was destined to honor beyond any one of his countrymen before him. He held at first a lowly place on board of a coasting vessel belonging to his native town. He afterwards came to New Haven, and engaged himself on board of a West Indiaman. He rose through the successive grades of his arduous profession so rapidly, that while yet a young man he commanded one of the most valuable ships sailing from the port.

Soon after the commencement of the war, we find him commander of the "Constitution," a ship as dear to Americans as Nelson's ship, "Victory," is to the British people, and his career in "Old Ironsides" is a noble part of American history. In his engagement with the "Guerriere," he convinced the British navy that in him they had "a foeman worthy of their steel," in spite of the fact that they had the recent prestige of Trafalgar and the Nile.

On the 19th of August, 1812, he gained this victory, the "Guerriere," commanded by Dacres, being one of the fleet which had shortly before prevented him from entering New York harbor by way of Sandy Hook. In the battle the British captain lost eighty of his crew, killed and wounded, while Captain Hull lost seven killed and seven wounded. Nothing more clearly shows the severity of the firing than the fact that the "Guerriere" was so riddled by the shot of the "Constitution" as to make it necessary to burn her. She was in too helpless a condition to be taken to port.

"Isaac did so maul and rake her
That the decks of Captain Dacres
Were in such a woeful pickle
As if death with scythe and sickle,
With his sling and with his shaft
Had cut his harvest fore and aft.

"Thus in thirty minutes ended
Mischief that could not be mended.
Masts and yards and ship descended,
All to David Jones's locker.
Such a ship in such a pucker!"

—(*Old Song.*)

Soon after the close of the war the legislature of Connecticut *resolved*:

"That they entertain a high and respectful sense of the virtues, gallantry and naval skill of their fellow-citizen, Commodore Isaac Hull; that an elegant sword (now in Archives of State Department at Washington) and pair of pistols, both mounted with gold, with suitable inscription, and manufactured in this State, be procured; and that his Excellency, the Governor, be respectfully requested to present the same to the Commodore, with a copy of this resolution, as honorary tokens of the high esteem in which he is held by the people of this State for his personal worth and public services; and that his Excellency be requested to do this in a manner which he shall deem most expressive of the sincerity of our esteem."

Among the most valued historical treasures of the New Haven Colony Historical Society are the two quaint pormanteaux which were once owned by the Commodore. The larger of the two, which served as a reading desk when this history was read before the society, was in Hull's cabin when he fought the "Guerriere."

The Society has also the vote of thanks, handsomely engrossed on parchment, presented to Commodore Hull by the General Assembly of the State of New York, as well as a document showing that "the freedom of the city of Albany" was given to the gallant sailor.

One word for the frigate "Constitution," so intimately associated with our New Haven county hero, who commanded her. She was built at Boston in 1797, and became a famous ship by her successes in the course of the War of 1812, during which she defeated the "Guerriere," the "Java," and other British vessels. After serving many years on the different European stations and several others, she was, in 1849, the flag-ship of Commodore Moulton in the Mediterranean, and in 1856 the flag-ship of Commodore Mayo on the west coast of Africa. As a fighting vessel, she has for many years been out of date, and was not used in suppressing the Rebellion.

A short time previous to the Centennial Exhibition she was thoroughly overhauled and visited by thousands of Americans. She carried a cargo of goods from the United States to the Paris exhibition, and visited, in 1880, the city of Halifax and several of the West Indian ports.

On the 15th of December, 1881, she was put out of commission, her flag hauled down, in the presence of a large number of officers and men. Hereafter she will be known as a hulk only, in the "Rotten Row" of the Brooklyn navy-yard.

During the blockade of the Sound, the roads between New York and Boston presented a scene never before witnessed. It was one which, in all probability, will never be repeated. Strung along this distance were wagons going either way and conveying merchandise of every kind and description. The government was forced to transport all its vast supplies for the use of the army and navy by teams; and so numerous were the teams in public and private employment, that at one of the stage houses here in New Haven it was a common sight to see thirty or forty arrive in one night.

By the same road and in the same style of conveyance, the coffins containing the bodies of Captain Lawrence and Lieutenant Ludlow, of the "Chesapeake," passed through our town on the journey to New York.

Passengers willing to pay the extra fare, were accommodated by the "Diligence Stages," which were owned and controlled by Mr. Seaman, of New York. The schedule time was forty hours between New York and Boston, not including stoppages.

The traffic on the roads was so great, that many of the turnpikes paid dividends for the first and the last time. One part of the way, the Milford turnpike, which generally paid but a small dividend, so increased its profits at this time as to average ten dollars per share. It made one dividend of fifteen dollars.

During this period, and in fact throughout the whole time that the blockade was maintained, the prices of imported articles appreciated until they rose in value to almost fabulous sums; and during the winter of 1814, great suffering was experienced by many of our people who had been deprived of the means of earning a livelihood.

Previous to the establishment of a strict blockade of Long Island Sound, the New York and New Haven packets had made regular trips between these two places, bringing from New York great quantities of merchandise which was loaded upon wagons and distributed through the North. But after the proclamation of Captain Oliver, ordering a strict blockade of the Sound, the packets made very infrequent and irregular trips.

The fleet at the entrance to the Sound included some of the largest and finest ships of the British navy. At different periods of the war there were stationed there the

Ramillies . . . 74 guns.	Superb . . . 44 guns.	Pactolus . . 15 gun-brig.
Valiant . . . 74 guns.	Arab . . . 40 guns.	Dispatch . . 10 guns.
Narcissus . . . 50 guns.	Nimrod . . . 40 guns.	Tenedos . . 10 guns.
Pomone . . . 50 guns.	Acosta . . . 38 guns.	Terror . . . 10 guns.
Orpheus . . . 44 guns.	Shannon . . . 38 guns.	Spartan . . 50 guns.

This last-named ship was the one Captain Lumsden mistook for an Indiaman.

The fleet dispatched every day several small tenders, which cruised up and down the coast, and kept the packets in a continual state of alarm. One of these tenders was the "Liverpool Packet," so-called. She was formerly an American schooner, and a very fast sailer. She was captured by one of the ships at New London, and her name changed. Now, for nearly two years, she had pestered the Connecticut coast from Connecticut river to Sand's Point. So constantly did she pass and repass the mouth of our harbor that her name became a household word, though not a name of fondness and delight. Many small crafts had been captured by her; and no coasting skipper ventured into the Sound unless the "Liverpool Packet" had passed in the opposite direction from his course. On the little earthworks of Beacon Hill there was a signal station, whence signals were transmitted to New Haven, giving news of the doings of the cruiser. One signal was: "'Liverpool Packet' gone to the eastward." Another: "'Liverpool Packet' gone to the westward." Thus our people were tolerably well informed respecting her proximity to the port.

There are many amusing incidents told of the doings of those fast-sailing tenders, and of the "Liverpool Packet" in particular; and at the expense of being accused of relating one of the ancient stories with which we are annually regaled, I will spend a moment in narrating the misfortunes which befell one of the New Haven packets in the days of the blockade.

The packet "Susan" lay in our harbor, ready to proceed to New York, but waited several days for the signal to be raised which would indicate that the "Liverpool Packet" had gone to the eastward. The captain of the "Susan" was John Miles, of whom one word must be said.

He was born of good old New Haven stock. His ancestors' house stood near the corner of George and State streets, and was built many years prior to 1748, when a survey of the colony was made. John Miles was born on the ancestral ground, and began at an early age to follow the sea. This pursuit was interrupted by the breaking out of the War of Independence, and among the first to enlist in the service of his country was John Miles. He joined the heavy artillery, and remained in the army till the end of the war. He received his commission through the hand of Benedict Arnold.

His regiment was stationed at West Point when a transport, loaded with arms, ammunition and provisions for the American army, arrived off the Point. She had no sooner dropped anchor than she was boarded and set on fire by the British, who were in force on the eastern side of the river. Washington, who was on the shore and an observer of the proceedings, at once called for volunteers to swim to the transport and extinguish the fire. The loss of the supplies he knew would be almost irreparable, and he promised a commission to any who would go. Twelve soldiers of the artillery volunteered. One of the twelve was John Miles. Nine of the number were shot by the enemy, but our townsman returned uninjured. Washington forthwith gave the survivors their commissions as lieutenants.

The regiment of Miles marched from West Point to Yorktown, and were present at the surrender of the British forces. Till the last days of his life, he never tired of relating the particulars of that event; but, he said, no one could describe the joy and enthusiasm which prevailed throughout the American camp when it was seen that the British had been forced into a place from which there was no escape but in surrender. Captain Miles used to say: "We had him (Cornwallis) where we could shell the *corn* off his body and leave him *Cob-wallis*."

When the army was disbanded, Captain Miles returned home and resumed his

seafaring life. He afterwards engaged in trade and built his store where the old Mechanics' bank now stands. His house was the large brick building which stands next north of the bank.

When Lafayette held his reception in New Haven at Butler's tavern, he noticed Captain Miles in the throng of people who had assembled to do him honor. He called him to his side and gave him a kindly and affectionate greeting. Captain Miles died in 1830, and was buried in the old cemetery.

The packet "Susan" was, in the time of the blockade, commanded by this old New Havener, of whom we have been speaking. Early on the morning of October 1, 1814, the signal gave notice that the "Liverpool Packet" had passed to the eastward at daybreak. The "Susan," therefore, proceeded upon her voyage to New York, and reached that city in due time without adventure. On the 7th of the same month she was ready to return; and, on Sunday morning, she sailed for New Haven. Some of our citizens afterwards maintained that the disasters which befell Captain Miles, came upon him because he commenced his voyage on the Sabbath day. Be that as it may, he sailed for home with a cargo of merchandise valued at not less than \$15,000. Most of this sum was represented by imported goods of every description. One part of his cargo was several months' supply of paper for the *Connecticut Journal*.

Captain Miles was a cautious navigator, and he anchored his vessel for the first night in Greenwich Bay. Getting under way again early Monday morning, he sailed prosperously, and, on the afternoon of that day, was off Stratford Point with so strong a westerly wind that he expected to be in our harbor during the evening.

Captain Miles had the reputation of always having a *good cook*. He generally had his cabin filled with passengers. On this voyage he had several, among whom were Mr. Isaac Townsend and son and Mr. Ebenezer Johnson. The latter lived in the house where Mr. Veitch now has his seed store. He had been to New York on business. All the passengers expected to reach home in time to get ashore that night and appear in their usual places of business the next morning.

At noon on Monday the master of a Long Island sloop had spoken Captain Miles and informed him that the dreaded "Liverpool Packet" had been to the eastward several days. Thus encouraged, the "Susan" had been jogging along till we find her off Stratford Point.

Shortly after passing this place, the "Susan" observed a sail approaching, evidently from Long Island. The advancing craft was a stranger to all on board; but they did not at all fancy her appearance, and as she continued her course towards him, Captain Miles tacked ship and headed his vessel for Stratford river. The passengers took the alarm and secreted their valuables as well as possible. Mr. Johnson put a large number of gold dollars inside of his stock.

The "Susan" made good headway towards the desired haven; but it was too late. The stranger gained rapidly; and though she had a load of cord wood upon her deck, the practiced eye of Captain Miles perceived through her disguise that she was a vessel in the service of the blockading squadron.

He thought, however, that if he could only reach the river, all would be well. He would try at all events; and crew and passengers bent bravely to the sweeps, which had been quickly put out, while visions of "Dartmoor" and of Halifax jail presented themselves to their imaginations.

No use; the stranger, which had hoisted a British ensign, ran down abreast of them, luffed to the wind, and threw an eight-pound shot across the bow of the

"Susan." Captain Miles was too old a sailor not to comprehend that marine language, and, with a sigh, he told his helmsman to bring his vessel to the wind. He then dropped his gaff, and in a few moments a boat came alongside from the cruiser, and out of it a midshipman stepped upon the deck of the "Susan," informing Captain Miles that his vessel was a prize to His Majesty's brig "Dispatch," and that he would at once relieve him of the further command of the "Susan." Several men were immediately sent on board, and with the passengers and crew, Captain Miles' packet, carrying her rich cargo, was soon standing towards the British fleet off New London.

A Stratford man who had been fishing in his boat near the river's mouth, witnessed the proceedings, and forthwith put in for the shore; and as soon as he reached it he saddled his horse and made a straight wake for New Haven. Going through the streets, he continually cried out: "'They've captured the 'Susan!' 'They've captured the 'Susan!' " Thus by the time that he had reached the wharf, the news was very generally known.

The excitement was great, and the indignation knew no bounds, when it was told that the British had actually captured a New Haven packet, and that one, of all others, Captain Miles' "Susan."

They would rescue their fellow-citizens at all hazards. Word was immediately sent abroad that those who were willing to go out to retake her, should meet at the conference-room of the Center Church, in Orange street. Without delay, amidst a shower of expletives and threats of vengeance, the cutter "Eagle," which had been moored for safety above Tomlinson's bridge, was towed to the end of Long Wharf and hastily fitted for a cruise.

An aged shipmaster, when in his ninetieth year, told me that on that eventful day he was returning from East Haven, and was on the bridge just as the draw was swung to allow the "Eagle" to pass through. Some ten or more boats were towing her. Her deck was filled with men and boys, reeving rigging, bending sails, and generally putting things to rights. He says that judging from the threats which were uttered and the anger displayed, he supposed that the "Eagle," single-handed, was going to attack the entire blockading squadron.

Thirty-odd men in the meantime met at the conference-room and speedily started to join the cutter. Elnathan Attwater was chosen commander of the volunteers, and John Davis lieutenant. Large quantities of lint and linen bandages were packed by the women and sent on board.

That afternoon, at five o'clock, in tow of many boats, the "Eagle" passed down the harbor, and, with a light breeze from the south, stood out into the Sound, heading towards Mattituck, on the Long Island shore, hoping to cut off the tender and her prize. The crew of the "Eagle," however, saw nothing of the object of their pursuit. But when the mist lifted on the following morning they saw, in close proximity to them, an English fifteen-gun brig, "Dispatch," by name.

A yearning for home now filled the hearts of the cutter's men—the volunteers especially—and, as it was judged useless to contend with a vessel so heavily armed as was the "Dispatch," it was instantly *sauve qui peut*.

Captain Lee, the regular commander of the "Eagle," ordered the great sweeps to be put out. They were manned by nearly all the thirty volunteers. The crew of the cutter manned two of the boats, and, propelled in this manner, the shore was pulled for, a creek being the objective point.

The gun-brig immediately hoisted out two boats, sending them in pursuit. They soon came up with the "Eagle," and sharp firing began without waste of time, but little or no damage was done by it.

When within hailing distance of the shore, Captain Lee ascertained from some farmers who were on the beach, that there was not sufficient depth of water in the creek to float the cutter. This intelligence caused a hasty consultation, and then it was decided to ground her on the sand. This was soon done, and her armament, consisting of two two-pounders and two four-pounders, was dragged on shore, placed on a bank of earth, with the cutter's flag and the American ensign set over them.

Just at this time the "Liverpool Packet" hove in sight and joined the brig. Both immediately began to shell the crew of the "Eagle," but after three hours of hard work they drew off.

The only life lost in this engagement was that of a young heifer, grazing near by in a pasture. A writer in the Hartford newspaper, a few days after the affair, said that the "Dispatch" was "the same gun-brig whose shot, at the bombardment of Stonington, killed a horse and a hog."

The "Eagle" was floated off from the beach that night, but several armed boats from "the cattle-killing brig" came a few hours before daylight and took possession of her. She was sent to Halifax, where she was refitted and employed by the British as a cruiser. From that period all record of her is lost.

The name "Eagle" was at that particular time in ill-repute with the officers of the blockading fleet. A short time previous, private individuals in New York had sent a small vessel called the "Eagle," in charge of a captain and crew towards the fleet. To deceive the enemy as to her true character, her hold was partially filled with barrels of lime and stone, and her deck with timber. Under the stones five hundred pounds of gunpowder were placed, and an apparatus so arranged, that in consequence of a clock-like machine being set in motion, an explosion would follow at a given time. Off Hammonasset Point this vessel was captured, after a slight show of resistance, by one of the tenders and sent to the fleet. Fortunately for the frigate to which she was a prize, she was not moored alongside, but was anchored some distance away. Her crew were paroled and sent on shore, but before leaving they set the machinery of the apparatus in motion. Two hours afterwards the vessel was blown to fragments. The British lieutenant who was in charge was instantly killed; also ten of his men, and an equal number wounded.

This so aggravated the officers of the whole fleet, and especially Commodore Hardy, whose frigate, "Ramillies," so narrowly escaped destruction, that he sent word to General Isham, commanding at New London, that he would thenceforth allow no vessels but those carrying a flag of truce to pass through his fleet. Soon afterwards, however, he announced that he would not molest any fishing vessels employed about the Sound.

The "Susan," meantime, had reached the squadron, where, after a few days' detention, all the passengers were paroled. Captain Miles ransomed his vessel by the payment of \$2,000, and arrived at New Haven, shortly after his passengers returned to this place. Both passengers and crew, during their sojourn with the fleet, were kindly treated by the commanding officer and his men.

The successful eluding of the vigilance of the blockading squadron by Captain Howard, of the New London packet "Juno," deserves notice even at this late day. In respect to this craft Miss Caulkins says:

"Had her compass and helm been charmed to guide her safely, she could scarcely have performed her trips with better success. Once indeed she was driven into Saybrook river, and her mast shot away; but this was her only serious disaster. Her enterprising commander generally chose a dark night in which to leave the harbor and run through the blockading squadron, and as no shore lights were then allowed, he steered his course by the stern lights of the enemy's ships.

He often went out and came in under cover of falling rain or driving snow. He had four pieces of cannon on his deck and was well supplied with shot, but confined himself strictly to a defensive course, pursuing his way steadily, and never firing a gun except in case of attack. He was narrowly watched by the British, who easily obtained all the newspapers published on the coast, and could ascertain with tolerable accuracy his periods of departure and return. He was several times pursued by their boats, but a spirited discharge of his guns always succeeded in driving them away; and in several critical periods when he found himself in peril from the large vessels of the enemy, a favorable wind and a turn of the tide assisted his escape. This very fact, that the 'Juno' continually eluded their grasp, made the British more desirous of putting an end to her career, and rendered her ultimate escape the more remarkable."

Early in January, 1815, rumors were heard that peace would probably be declared; and on the 25th of that month there arrived, at the capes of the Delaware, a British frigate, whose commander reported that he had spoken a London ship and learned from the captain that when the Londoner left England the preliminary articles of peace were ready to be signed at Ghent. This report was soon afterwards denied not only, but on the contrary, it was reported, and apparently upon good authority, that all negotiations were broken up, and even that our commissioners were on their way home.

Thus hopes for a return of peace and prosperity were confounded; and in this part of the country all were dispirited and discouraged.

Fortunately, however, brighter days were soon to follow; and on February 13, 1815, came the welcome news, that a treaty of peace between Great Britain and the United States had been signed at Ghent on December 24, 1814, and that it had been ratified on the 30th of the same month by the Prince Regent. It was also reported that the American commissioners would sail for home in the British frigate "Favorite," and bring with them the treaty for ratification by the President.

The treaty thus made was extremely acceptable to us, but most unpalatable to the British nation at large. Most of them painfully felt the conviction that their boasted supremacy of the seas had been divided with another nation, and that even this was not the worst of the case; but that, in yielding to "the boastful, insolent and naturally vain Americans," the concessions which had been demanded, the ancient honor of England had been sullied. The London *Times* belched forth its usual thunderings and prophecies. On December 28th, it presented to its readers a powerful leader, lamenting the national disgrace, and urging that the war, cruel as it was, be prosecuted unless the United States should yield. It said:

"Better is it that we should grapple with the young lion when he is first flushed with the taste of our flock, than wait until in the maturity of his strength he bears away both sheep and shepherd."

In the London *Advertiser* of the same day appeared the following:

"ADVERTISEMENT EXTRAORDINARY.

"*Wanted.* The spirit which animated Elizabeth, Oliver, and William.

"*Wanted.* Better negotiations or more gunpowder.

"*Lost.* All ideas of national honor and dignity.

"*Found.* That any insignificant State may insult *that* which used to call herself 'Mistress of the Waves.'"

The London *Chronicle* also lamented a dishonorable peace, but informed its readers that "the best means of ascertaining the fact of the treaty being palatable, or the contrary, will be from the returns of the manufacturing districts throughout the

empire and the state of the Custom House books." In our own country the news of peace was received with undisguised feelings of joy and satisfaction.

Within one hour after the news reached New Haven, the church bells were rung; cannon fired on the Green. Citizens shook hands and congratulated each other as they met on the streets. The ever-busy school-boy marked the word *Peace* on doors, fences, pavements. The cannon from the fortifications on Beacon Hill and Fort Hale proclaimed to the surrounding villages the joyful tidings that peace was once more to reign over our land. Such a tumult of joy (an eye-witness once told me) was never before seen in our streets.

At night the city was illuminated—not a house but had its candle at every window. Candles were placed on the tops of the posts of the fences surrounding the Green and the colleges. The streets were filled with a happy multitude, and, if report be true, most of the rum which had weathered the gales of non-intercourse, the embargo act, and the blockade, was consumed during the joyful night of February 13, 1815. The rejoicings extended in various ways for nearly a week. There was great rejoicing again on the day after it became known that the President had ratified the treaty. The newspaper of the time said:

"Wednesday last, the treaty having been previously ratified (being also the birthday of Washington), was devoted to the celebration of these two great events—the one as the harbinger of our former glory, the other of our future prosperity. A Committee had been appointed to make the necessary arrangements. The day was ushered in with the roar of Cannon and the ringing of Church Bells. The Military were called out. The Governor's Horse and Foot Guards and the Artillery appeared in their usual brilliancy. At eleven o'clock, the Military and Citizens repaired to the new brick Meeting House (Center Church) where discourses were delivered by Dr. Dwight and the Rev. Messrs Merwin and Taylor."

At Butler's tavern a large party of our citizens dined together; the military at their armory. At Goodyear's tavern, which stood at the head of Long Wharf, the merchants provided a hearty dinner for the "Ring Bolt Guard." At this dinner, we are told, they clasped hands across the rough deal-table at which they sat, and over their cans of grog congratulated each other upon the return of peace and prosperity. Captain Bonticou, an aged mariner, with a face reminding one of the beak of a Roman galley, struck up the then popular song:

"Free Trade and Sailors' Rights, John Bull."

This, like a gale in itself, was chorused by all the Jack Tars in the room. Salutes were fired at intervals and the day passed in festivity and mirth.

During the day were seen in many places and on many vessels the American and the British flags displayed from the same staff. There were similar rejoicings in many of the New England sea-port towns, particularly at New London.

On board of the "Superb," Admiral Hotham's flag-ship, the parole for the day was "America," and the countersign "Amity." A grand banquet was given, and the admiral and many of his officers were present. The interest of the event was heightened by the arrival of the British frigate "Narcissus," having on board Commodore Decatur and his lieutenant, Shubrick, who in command of the "President" had been captured a short time previous by the British frigate "Majestic." Decatur and Commodore Shaw served as ushers at the banquet the same evening. Early in the morning of the 11th of March, 1815, the British fleet saluted the fort and sailed away for Jamaica.

The return of peace was an incalculable benefit to the nation generally, but it caused so sudden a depreciation of prices that not a few commercial houses throughout the country were unable to withstand the pressure. They succumbed, and were swept away.

Prices of foreign goods receded so rapidly that in one day tea declined \$1 a pound; sugar, from twenty-six and one-half to twelve cents; specie fell from a premium of twenty-two per cent. to two per cent.; tin, from \$80 the box to \$25; and other commodities in like proportion.

Six per cent. United States stocks rose from seventy-six to eighty-eight per cent.; treasury notes, from ninety-two to ninety-eight; and, throughout the country, the value of bank shares rose from \$5 to \$20 each.

In New Haven, the return of peace found many of our merchants with considerable stock of imported goods; yet nearly all maintained their credit, and speedily made preparations to recommence their relations with foreign ports. There was a renewal of the scenes which followed the repeal of the embargo and non-intercourse acts. All was bustle and activity. The ships were brought from their moorings. Twenty-four sea-going vessels were taken to the wharf in one day. Many of them were hastily sent on voyages to various ports of Europe, the West Indies, and the Southern States.

A writer in the *New Haven Journal* of that date says:

"All is activity and enterprise. Sailors' rights beat time to the sound of the shipwright's hammer at every wharf; and no longer in toasts and sentiment does Free Trade exist, but in reality. Henceforth, and we trust forever, are American ships to enjoy to the full extent their heritage of the ocean, to journey through its most frequented waters, to voyage over its most distant seas, feeling that the standard under which they sail is forever a sign manual, to be respected by friends and to be feared by foes."

Immediately after the close of the war, an order in council was issued whereby all British ports in the West Indies were thrown open to vessels of the United States for six months; but if, at the expiration of that time, no commercial treaty should be made, all intercourse in American bottoms should cease. No treaty was made within the time specified, and those particular ports were closed. They remained unopened, with one or two intervals, until 1831.

Short-sighted policy and narrow-minded legislation caused, soon after the peace, a bill to be passed by Congress taxing British vessels one dollar per ton, and, if loaded, a discriminating duty of ten per cent. This provoked, of course, retaliation on the part of Great Britain, and an order in council was immediately issued excluding American vessels from ports in the British West Indies.

Mr. Adams followed this with a proclamation prohibiting all intercourse with those islands. This caused great inconvenience to British vessels then on their way from those ports. After several years of annoyance and trouble, mutual concessions being made, the order of Mr. Adams was repealed, and on the 5th of October, 1830, General Jackson issued a proclamation in which he declared that British vessels were henceforth to be admitted to all ports in the United States upon the terms accorded to the most favored nations. The British government forthwith repealed their previous orders, and from that time till to-day—over fifty years—the ports under the jurisdiction of the British Empire have never been closed to vessels carrying the American ensign.

At the termination of the war there were owned in New Haven one hundred sea-going vessels, nearly all of them commanded by New Haven captains, and manned

by American-born seamen, carrying the American flag to every quarter of the globe. The commercial relations formed with distant ports in Europe and South America, and with the fruit ports in the Mediterranean, were profitable, and for many years valuable cargoes from those ports were brought to New Haven. But within the last thirty years New York has gradually absorbed the commerce of our port, and although there is to-day more tonnage owned in New Haven than at any previous time in her history, New York receives the credit of it in the fiscal returns of the government of the United States.

Before closing this chapter, it may be proper to recall the names of the men who, during the troublous times of which we have here spoken, were engaged in the foreign commerce of New Haven, employing more than one hundred ships, whose keels furrowed every sea, on their peaceful missions, and furnishing the means of livelihood to many hundreds of American seamen and their families. Prominent among these merchants and ship-owners of our city were L. W. & P. Armstrong, Elnathan Attwater, Ward Atwater, Walter Buddington, John C. Bush, Bradley & Mulford, Joseph N. Clarke, Samuel Collis, Eber H. Collins, Lockwood De Forest, Henry Daggett, James Goodrich, Jehiel Forbes, Samuel Forbes, Elias Hotchkiss, Ezra Hotchkiss, Russel Hotchkiss, William S. Hotchkiss, Abram Heaton, Frederick Hunt, James Hunt, Ammi Harrison, Justus Harrison, James Henry, Simeon Hoadley, Hull & Foote, Kidston & Bishop, Samuel Langdon, Birdseye Norton, Aaron N. Ogden, Thomas Painter, Samuel Palmer, Ebenezer Peck, Gad Peck, Anthony Perit, Elihu Sanford, Prescott & Sherman, Shipman & Dennison, Isaac Tomlinson, Capt. Totten, Caleb A. Townsend, Ebenezer Townsend, William Townsend, Wm. & Wm. B. Townsend, Henry Trowbridge, Steven Trowbridge, H. Trowbridge's Sons, Thomas & Henry Ward, Samuel Ward, Noah Wheedon, Chauncey Whittlesey, Thomas Woodward.



CHAPTER LXXIX.

THE MANUFACTURING INTERESTS OF HARTFORD.

BY P. HENRY WOODWARD.

THE BEGINNINGS.



ANY years after the first settlers assumed possession of the country the business of Hartford was mostly restricted to agriculture and trade. Located in the heart of a fertile valley and at the head of navigation for ocean-sailing vessels, the town was long the commercial centre of perhaps two-thirds of the colony and of the region that stretches northward to the sources of the Connecticut. Not till well into the present century did the forces of modern industrial life give a new turn to the energies of the people.

Such aids to muscle as were most urgent and could be supplied from the resources of a primitive community, came early. In 1637, a grist-mill was built on Little River, on a site that has been continuously occupied for the same purpose since. More than twenty years elapsed before the colonists enjoyed the benefits of a saw-mill, having built all their early homes from logs and boards prepared by hand. Cloth from hemp, flax, wool and cotton were made at odd hours on domestic looms. Tanneries were soon introduced.

Within the limits of the town, before the end of the seventeenth century, were several fulling mills for removing greasy matters from domestic woollens and giving them a more compact texture. Later, the export of hoops and staves to the West Indies encouraged cooperage. The making of hats began early and continued till recently, but in the modern whirl has been transferred to other places. Attempts to domicile the silk industry, pursued on a small scale for over a century at Mansfield and elsewhere, finally expanded in Hartford and South Manchester into the factories of the Cheney Brothers, in which millions are invested.

FIRST AMERICAN WOOLLEN MILL.—A woollen mill, the first in the country, was started in Hartford in 1788. Its capital of £1,250, was taken by thirty-one persons, including several leading men of the state. At the ceremonies attending the inauguration of General Washington, April 30, 1789, the President, Vice-President, and Connecticut delegation in Congress were dressed in cloth from this mill. Contemporaneous press notices show that the promoters of the enterprise knew how to improve the incident to advertise their wares. On his tour through New England, General Washington visited the factory in October, and, on the assembling of Congress, January 8, 1790, addressed both houses in a "crow-colored suit" from the same establishment. During four months, from September 1, 1788, ten thousand, two hundred and seventy-eight yards were made, in brown and gray, known as

"Congress Brown" and "Hartford Gray." It sold at prices ranging from \$2.50 to \$5.00 per yard.

In 1791, a lottery, created to aid the enterprise, netted nearly \$10,000, postponing, but not arresting, the inevitable collapse. Lack of communication between different parts of the country narrowed the market; the general poverty after the Revolution permitted few to indulge in the luxury of broadcloth; and in the supply of such demand as existed the company was forced to compete with the abundant capital, superior machinery and cheap labor of Europe. Unsold goods accumulated in spite of their excellence. Auctions relieved the plethora, but weakened the treasury. In December, 1794, the company declared a dividend of fifty per cent., to be paid in cloth, and a few months later dissolved. A venture, courageous but premature, ended in disappointment. The old factory on Little river, near the foot of Mulberry street, was burned April 3, 1854.

VENTURES OF THE PITKINS.—East Hartford, including Manchester, formed a part of the township of Hartford till 1783, and since, as well as before, the communities have been closely united by social and business ties. In 1747, under an exclusive privilege granted by the General Court for fourteen years, Col. Joseph Pitkin set up on Hockanum river a forge for making bar-iron, and a mill for iron slitting. Three years later, parliament passed an act prohibiting the continuance in the colonies of iron mills and furnaces for making steel, under penalty of £200, and thus at birth was throttled a promising industry. During the Revolution, in the same buildings, powder was made in large quantities by the Pitkin family, for the Continental army, for which they were afterwards compensated in part by grants of exclusive privileges in the manufacture of glass and snuff. In 1782 they were also forging anchors, and making mill-screws and nailrods. Here, in 1797, were cast the guns which Elisha Pitkin gave to the old artillery company.

In a mill built by Elisha Pitkin about 1770, at the lowest privilege on the Hockanum, was set up the first wool-carding machine run by power in the state, and probably in the country. Felt was made here in 1807 by Joseph, son of Elisha, under a patent for making "cloth without yarn." Samuel Pitkin, with John Warburton, an Englishman, as overseer, started the first successful cotton factory in Connecticut, known to the present generation as the "Union Manufacturing Company."

FIRST STEAM ROAD-WAGON.—About 1797, Dr. Apollos Kingsley built the first steam road-wagon ever operated. He also invented the first brick-pressing machine, and with it were made the moulded bricks still to be seen in the "Mansion House," just west of the police-station on Kingsley street.

SILVER WARE AND BRITANNIA.—Before the Revolution, John Austin made silver spoons and other articles of luxury for the wealthy, working, from lack of capital, upon metal furnished by customers. Not long after the Revolution, Jacob Sargent began to manufacture silver ware upon a much more extensive scale, taking the lead not only in Hartford, but in Connecticut. He erected the building west of the United States Hotel, now Nos. 20 and 22 State street, using the entire premises. On the lower floor, back of the store, was a shop for fine work, including gold beads and eardrops, silver spoons, ladles and sword trimmings. On the floor above he made the old-fashioned tall clocks.

The brothers John O. and Walter Pitkin succeeded largely to the business. They had a shop across the river for the manufacture of solid silver spoons, forks and spectacles, and the leading jewelry store in Hartford, in a building on Exchange corner, which was destroyed in the fire of 1833. The disaster did not check the prosperity of the firm. Pressure of orders often kept the men employed till midnight.

The goods were made exclusively by hand until about 1855, when the concern procured dies for cutting out the forms, thus saving a large amount of labor. Competitors, however, soon forced it to discard the dies and return to the old method, by convincing the public through advertisements that the hand-made article was much more durable.

In 1834 Henry and James F. Pitkin made the first watches produced in this country, known as the American lever. Through workmen trained by the Pitkins, the Waltham Watch Company may be said to be a scion from this stock.

Early in the century T. D. and S. Boardman led the way in the production of hollow-ware from Britannia, laying the foundations of an industry that, since the discovery of electro-plating, has grown into great importance here and elsewhere. The firm was one of the earliest to introduce the steam engine.

BELLS AND CORDAGE.—Bell-making began as early as 1788, in the hands of Doolittle and Goodyear, and a generation later flourished at the foundry of their lineal successors, Ward, Bartholomew & Brainard, located back from Main street, opposite St. John's church. A notion prevailed that "silvery" tones were due to generous contributions of silver in the composition of bell-metal. Hence, at each casting a Spanish four-pence-halfpenny was dropped into the molten mass. By this device the pious makers both avoided telling an untruth and were enabled to give to church committees a plausible reason for the costliness of their wares.

About 1789 John Morgan and Everard Benjamin built on Morgan street a ropewalk, of which James Church became sole proprietor in 1795. He was followed in 1837 by his son, Abner Church, who has continued the trade, but not the manufacture, up to the present writing. Other cordage factories followed, but the industry slowly died out with the decadence of local maritime interests.

HARTFORD IN 1818.—In 1819 John C. Pease and John M. Niles issued a gazetteer of Connecticut and Rhode Island, based upon statistics for 1818. In Hartford a population estimated at six thousand five hundred were housed in eight hundred and fifty dwellings, worshipped in six churches, and sent their children to twelve district schools. Free from dependence on the external world, the bibulous could drink the product of eight distilleries at twenty-one taverns; and, if constrained by sudden thirst, could further refresh themselves at eighteen ale houses, presumably intercalated at convenient intervals between the more ambitious inns. By 1825 the number of distilleries had dropped to two, not from violence of reformatory measures, but because the restoration of foreign trade after the War of 1812 withdrew the inordinate stimulus to domestic production.

Hartford had five wholesale and twenty-six retail dry-goods, and sixty-eight grocery, provision, crockery and drug stores. Nine printing offices helped to disseminate truth and falsehood. Fourteen houses were concerned in navigation.

In 1818 the city was well provided with artisans, like blacksmiths, masons, builders, carriage and cabinet makers, and others whose labor was chiefly directed to the supply of local needs. There were one cotton factory of three hundred and twenty spindles; two woollen factories, one employing fifteen hands; one machine card factory, with an annual product of \$10,000; one oil mill, six tanneries, five potteries, one button factory, one whip-lash factory, with a yearly output of \$10,000; two hat factories, one employing thirty-six hands; two tin-shops, two looking-glass factories, with an aggregate annual product of \$30,000; four coppersmiths, one employing twenty workmen; one bell foundry, one paper-hanging and one marble-paper factory, six book binderies, three engravers, eight gold and silversmiths' shops, fifteen shoe factories, ten coopers, three lottery offices, one maker of pewter (Britannia)

ware, two gold-leaf, one umbrella and one brush factory, with the usual complement of miscellaneous employments.

MOTIVE POWER.—During the first third of the century, away from Little River, horse-power was mostly used to drive machinery. William Denslow made wool cards by dog-power, using large, stupid animals on light revolving wheels.

THE WELLS PRESS.—At the close of that period, John I. Wells, a venerable Quaker, on a street named after him, but afterwards changed to Lewis, was making the best hand printing-press then known. A cast-iron frame and plain lever took the place of the old wood frame and screw. The improvement nearly doubled the speed of hand-printing. William Deming, on Commerce street, bored out logs for pumps and made blocks for nautical use.

SHIPBUILDING.—Shipbuilding was carried on at Dutch Point. Here were built the "Sylvie de Grasse," of six hundred tons, long a regular packet between New York and Havre; the steamer "Charter Oak;" the "Governor Graham," which ran on the Savannah river, and other craft.

POTTERIES.—On Front street Daniel Goodale and Goodwin & Webster made, on a large scale, pottery and stone-ware. Besides supplying the home demand they kept up ware-houses in Boston and Salem, and sold to other towns on the coast. In winter lines of sleds carried away the product and brought back fresh fish.

"RACKING" CIDER.—Many were engaged in rectifying or "racking" cider. Farmers brought into town, from long distances, the raw article, which was drawn from barrels, still on the carts, directly into vats and other receptacles. The business called for special training and skill and gave employment to a large force. It was all shipped to distant markets. Either from economy or taste residents preferred the juice of the apple just as it came from the mill. A barrel for each adult was considered a fair allowance for a season. Cellars were in demand both for treatment and for storage. Even the South Congregational Church did not hesitate to mend its revenues by renting its basement for such uses. Temperance reform wounded the business and lager beer killed it.

FRICTION MATCHES.—Under the first American patent for friction matches issued to him in 1836, Alonzo D. Phillips, of Hartford, opened a factory for making them on Front street.

BOOK PUBLISHING.—Till 1760 the literature of the colonies ran largely to sermons. Disputes with the mother country then drew attention to political questions, and there followed an epoch of tracts on the rights of American subjects under the British Constitution. The first printing-press in Hartford was set up by Thomas Green in 1764, and the same year he began the publication of the *Connecticut Courant*, which enjoys the distinction of being the oldest newspaper in America. The partnership of Hudson & Goodwin, formed in 1779, not only controlled the paper for a long period, but also printed many books, legal, medical, and miscellaneous.

In 1783 Noah Webster issued, in Hartford, his "First Part of a Grammatical Institute of the English Language," the second and third parts following in the two succeeding years. The series comprised a spelling-book, grammar, and reader—the first books of the kind published in America. So great was the sale of the speller that during the twenty years he was employed upon his dictionary an income of less than a cent a copy provided the means for the entire support of his family. Here, in 1790, under the editorship of Dr. Webster, Elisha Babcock printed the journal of John Winthrop, first governor of Massachusetts.

The "Graphic Company," an association of engravers, belonged to the second and third decades of the present century. They made plates for bank bills and illus-

trated books, including the poems of John Trumbull, published by Samuel G. Goodrich (Peter Parley) in 1820. Elkanah Tisdale, a miniature painter, fat, jovial and witty, till 1825 furnished the designs for the concern. Here Moseley I. Danforth, a native of Hartford, learned the trade. For ten years, from 1827, he resided in London, England, and ranked as one of the best engravers in that city. He was there joined by N. Jocelyn, another workman from the same shop. Returning to America Mr. Danforth became the head of the firm of Danforth, Wright & Co., which, in 1858, was merged in the American Bank Note Company.

Early in the nineteenth century the business of publishing here began to assume importance, and soon grew to large proportions. The city took the lead in selling books by subscription, and for many years retained its position at the head of the trade. Oliver D. Cooke & Son, in 1822, issued a "Family Encyclopædia," of which thousands of copies were circulated by this method. Silas Andrus, nervous, restless and untiring, alone and in partnership with J. W. Judd, Homer Franklin, and others, published nearly two hundred different works, many of them by standard authors. A few were brought out in good form, but for the most part the paper was cheap and the binding flashy. These found their widest market through roving auctioneers. From repeated reverses he rebounded with never-failing courage, and as soon as able paid his old debts.

About 1825 D. F. Robinson & Co. opened the leading bookstore in the city, selling over the counter as well as by agents. They published many school books. The firm of A. S. Barnes & Co., of New York, was a scion from this stock. Lucius Stebbins gave a further impetus to the trade by inventing a process for coloring pictures and maps by stencils. Among other houses early in the trade may be mentioned H. & F. J. Huntington, H. F. Sumner & Co., Case & Tiffany, Ezra Strong, House & Brown, and later Belknap & Hamersley, Sumner & Goodman (afterwards Aaron C. Goodman), O. D. Case & Co., and others. Mention should be made of Sidney Drake, who during an active career that exceeded half a century, bound many millions of books for local houses, and for publishers of Springfield, Boston, New York and Cincinnati. He had a succession of partners as younger men succeeded the old.

The war gave a great impetus to sales by subscription. The first venture sent forth to test the public temper was volume I. of Headley's History of the Rebellion, brought out by Hurlbut, Williams & Co., with more regard to haste in reaching the field than to critical accuracy. With the second volume the work was turned over to the American Publishing Company. Over two hundred and fifty thousand copies were sold. The next was called "Nurse and Spy." As originally offered it had no literary merit and was rejected by several houses. Finally one man became sufficiently interested in the story to take it up. Not till it had been revised and partially rewritten by a skillful journalist was the manuscript given to the printer. Within eighteen months one hundred and eighty-five thousand copies were sold, on which the royalty to the "author" reached nearly \$40,000. All conditions except merit favored success. Money was plenty, the title taking, the public eager for information, and wounded soldiers canvassed from house to house. Rivals hastened to provide food for the newly developed appetite. War books followed one another rapidly till that generation could absorb no more.

During the next few years Hartford firms issued over forty remunerative books, on a great variety of subjects, the circulation of each ranging from twenty thousand to one hundred and fifty thousand copies and more. Many of these were written by good and some by eminent authors. Through the efforts of ubiquitous canvassers

they reached thousand of homes in outlying settlements which otherwise would have gone without reading-matter, and thus over broad areas helped to create an appetite which only books can satisfy. Houses sprang up and grew rich on the profits of the trade. When the move culminated there were a dozen firms in Hartford, employing at least fifty thousand agents. With changed conditions the trade has latterly tended to large cities. It is still represented locally by a few strong and enterprising establishments, including S. S. Scranton & Co., A. D. Worthington & Co., and the American Publishing Co. The last, incorporated April 8, 1865, by the coalescence and absorption of various houses, traces its lineage to the origin of the subscription business in 1822, and some of the stereotype plates, made not long after, are still in its possession. From the beginning it has commanded an extensive trade, having disposed of immense editions of many well-known books, and having introduced to the public a number of noted authors. Frank E. Bliss succeeded his father, Elisha Bliss, Jr., as manager in 1880 and as president in 1886.

The concerns mentioned in the early part of this chapter were more or less ephemeral. None aroused in the people new ambitions, or apparently aimed at more than commonplace results. Among them was wide diversity, but no central purpose. We come now to a different order, animated by enthusiasm and directed by foresight—an order that has both developed and attracted a wondrous volume of inventive and constructive skill, winning for the city a reputation for manufactures hardly second to its fame in insurance.

SMITH, BOURN & CO. is the oldest manufacturing house in the city and the oldest in its line in the United States. Founded by Normand Smith in 1794, it assumed and has maintained a leading position in making saddlery and harness goods. For over a century the firm has never stepped outside of its legitimate calling, and, amid changes in fashions and revolutions in methods, has moved steadily forward in its course.

Normand, second, and Thomas Smith succeeded their father. Normand, second, died at the age of thirty-two, having, during his brief career, been sufficiently successful, not only to accumulate a handsome fortune for those days, but also to principally build and give as a free church to the present Fourth Congregational Society the structure on Main street, which was afterwards sold for secular uses, and known as the Melodeon. A memoir of him was written by Rev. Joel Hawes, D.D., for Sunday-schools.

In 1816 Smith, Sheldon & Bigelow opened a house in New Orleans and were supplied with goods from the manufactory of the parent establishment in Hartford. From the connections thus formed the business became almost entirely southern, and so continued till the outbreak of the Civil War. In winter, when New Haven harbor was frozen, goods were often carted overland to New York, to be shipped thence by sailing packets to New Orleans.

Connections which had endured, without a break, for forty-four years, were severed by the Rebellion. At once the house turned their attention, in large part, to military work, and were soon employing six hundred hands. This feature was dropped with the return of peace, when regular business was resumed. They gradually built up a large northern trade, which has since been extended to the south, not as formerly, through a branch house located there, but through their New York agency.

The firm buys its leather by the car-load, mostly from the tanneries of Pennsylvania and Ohio, using only the best quality. Sheet-iron is also bought by the car-load. Harness hardware embraces a great variety of articles and a still greater

variety of styles. Cutting is done by hand, and the best stitching as well as the finish of the collars and the mounting of the harness-saddles.

Since the death of the founder one or more of his sons have always been members of the partnership. Charles B. Smith, the youngest, was taken in in 1835, and, till very recently, could be found at his desk daily, with as much regularity as a clerk. In this country, at least, there can be found few similar cases where the connection of father and son in the same firm exceeds a hundred years.

Mr. S. Bourn, who had been the active man of the house for a long period, died in 1879. Benjamin A. Bourn, his son, became a partner in 1858, and Olcott B. Colton in 1885, both having won their spurs by faithful service.

The factory of the company is located on Sigourney street, near the tracks of the Consolidated Railway.

CHAPTER LXXX.

THE MANUFACTURING INTERESTS OF HARTFORD—*Continued.*

THE ADVENT OF STEAM AND IRON.



IN the production of cotton and woollen goods, paper, and some specialties, Hartford began early to utilize the water-power of neighboring towns, furnishing both capital and direction. Many of the prosperous villages that dot the country drew their first sustenance from this city, and are still bound to it by close connections. She was herself, however, compelled to wait for the advent of the steam engine before entering on an industrial career distinctively her own. Steam, too, changed the character of her home manufactures. Few of the industries catalogued in the "Gazetteer" of 1819 became permanently domiciled. A mention of the lines that have drifted elsewhere would involve a repetition of most of the list. The heavy concerns of to-day, with few exceptions, trace their lineage to the foundry and machine-shop.

In 1818 Horace Goodwin, William Dodd and Joseph R. Gilbert located on Dutch Point an iron foundry for general work, and especially for making the "Hartford air furnaces." As the venture proved unprofitable, the property was sold in the fall of 1820 to Alpheus and Truman Hanks, whose ancestors lived at Mansfield, Conn. The purchasers took possession in April, 1821, having meanwhile sold out their interests in Troy, N. Y. In addition to general work they made cast-iron plows of the Gethro Wood pattern, the first successful iron plow in the United States. In 1823 they bought land on Commerce street, where they built a stone foundry and brick warehouse. At the outset they ran by horse power, but in 1828 introduced a highly-finished steam engine, made by Daniel Copeland, who had a machine-shop directly opposite, where he was making engines and machinery. Copeland was probably the first person in town to use steam for motive power.

Several members of the Hanks family from time to time entered and left the concern till in 1839 Truman Hanks became sole proprietor. He then admitted as partners Samuel Woodruff, a former apprentice, and Charles Mygatt, and changed the firm-name to Woodruff & Co. Mr. Hanks now retired from active management, as he had become an incurable invalid. Mr. Mygatt retired in 1842 and Mr. Hanks in 1845, leaving his interests in the hands of his son-in-law, Henry B. Beach, who

formed a partnership with Mr. Woodruff, under the name of Woodruff & Beach. This was incorporated in 1853 as the Woodruff & Beach Iron Works, with a capital of \$225,000, of which Mr. Woodruff and Mr. Beach each took \$110,000.

The house attained great prominence for the excellence of its engines and boilers. They made the pumping engines and machinery for the water-works at Hartford and Brooklyn, and for the navy-yards at Charlestown and Norfolk. Perhaps it won most fame in the construction of marine engines. During the war these were used with notable success in several government transports, gun-boats and sloops-of-war, including among others such familiar names as the "Pequot," the "Nipsic," the "Mohican," the "Kearsarge," which sank the Confederate cruiser "Alabama," the "Cayuga," etc. Various novel and much-admired features were introduced in their designs.

At this time the works were admirably equipped, and from surface indications an on-looker would have pronounced the prospects most flattering. But clouds were gathering. Mr. Woodruff, a superior mechanic, took the presidency of the Putnam Fire Insurance Company, ill-fated because wretchedly mismanaged. In the fall of 1869 it transpired that this side issue had proved as unhappy for him as for the company, and he was thrown out. He was also entangled in other operations entirely foreign to the trade in which he excelled. Internal dissensions arose. Neither of the two principals would sell his stock on terms satisfactory to the other. The business became disorganized and orders drifted elsewhere. Mr. Beach petitioned for a receiver, and Jonathan B. Bunce was appointed in July, 1871. In the course of the proceedings a controlling interest was purchased for the benefit of Mr. Beach, who, with his son, a grandson of Truman Hanks, carries on at the old place the business of boiler-making, under the firm-name of H. B. Beach & Son.

LINCOLN & CO.—In 1832, Levi Lincoln, ancestor of the present proprietors of the Phoenix Iron Works, was agent and manager of the New England Card Company, which had a shop on Ann street. At one time the concern had on its books the names of nine hundred women and children scattered about the country, who were employed at odd hours in setting the wire teeth of the cards used in the manufacture of cotton and woollen goods, and for other purposes. Mr. Lincoln either invented or greatly improved a machine for punching the holes in the leather, and for making and inserting the teeth by a continuous process. The contrivance put an end to the domestic industry. It was operated at first by dog-power. Applying the same mechanical principles, Mr. Lincoln invented the hook and eye machine, which he sold for a song, and out of which the purchasers made a fortune. He also invented the molasses gate, which is still made in large quantities, and has never since been materially improved.

In 1834, with his son, George S. Lincoln, he started on Arch street, a small machine-repair shop. In 1841, this was turned into a formal copartnership under the firm-name of George S. Lincoln & Co. Having been offered by the Hartford and New Haven Railroad a contract for castings if proper facilities were provided for the work, the concern bought a lot and built upon it a double brick barn, which was afterwards converted into a foundry. It was already known as the Phoenix Iron Works. In 1846, C. L. Lincoln became a member of the firm.

Out of current profits the plant was enlarged from time to time. Lathes, milling machines, drills, planers, pullies, shafting, etc., were turned out in large quantities, and after no long interval gun tools for the armories of Europe and America. Meanwhile, special industries were springing up over the state, for which many, more or less crude, designs were here wrought into practical shape. Thus valuable con-

tributions were made to the silk industry of the country, to the printing-press, to quilt sewing-machines, water-wheel governors and other inventions. The friction clutch and counter-shaft and the split pulley were here first brought out.

F. A. Pratt was superintendent from 1854 to 1861, and on the list of employees are found many names that have since become well known as inventors or managers.

In 1892 an extension, 50 by 90 feet, was added to the foundry. The firm makes a specialty of architectural iron-work, including columns, fronts, lintels, girders, vault and jail doors, shutters, gratings, balconies, fences, window-guards, fire-escapes, fountains, vases, lawn seats, hydrants, etc. They do a large business also in machinists' tools, lathes, planers, upright drills, and the like, and in shafting, pulleys and gearing. In 1892, they contracted with Mather & Platt, of Manchester, England, the largest manufacturers of textile machinery in Great Britain, to make their patented machinery in the United States, under the immediate superintendence of E. A. Rusden, a late employee of that house. This branch has already expanded into a large business.

Levi Lincoln, the father and founder, was born at Oakam, Mass., November 3, 1790, retired in 1859 and died January 28, 1861. George S. Lincoln retired in 1885 and died April 2, 1894. Since 1885 the business has been owned and managed by Charles L. Lincoln and his sons, Charles P. and Theodore M. Lincoln. The premises extend from 54 to 70 Arch street.

GOLD-BEATING.—There were two makers of gold foil in Hartford in 1818, but the two houses now in the trade trace their lineage to William Johnson, who came about ten years later. James H. Ashmead succeeded him in 1839, and was followed by Ashmead and Hurlburt in 1846. In 1864 the firm dissolved and divided the business. Mr. Ashmead took his sons, Robert H. and Austin T., into partnership, while Mr. Hurlburt associated with himself John M. Ney, who had been with the old company for a dozen years. Since the death of Mr. Hurlburt in 1866, this division has been known as J. M. Ney & Co. Both firms formerly made gold leaf for gilding purposes, the latter having furnished the material for gilding the dome of the state capitol, but of late both have restricted their efforts to the production of gold foil for dental uses. J. M. Ney & Co. also manufacture the highest grade gold plate and gold solders, and on a large scale prepare silver for electro-platers, and sterling silver for the manufacturers of solid ware.

LITHOGRAPHY.—The process of lithography was discovered by Aloys Senefelder, who gave it to the world in 1819. Elijah C. Kellogg, a young artist of Hartford, went abroad in 1828, and, having learned the process, returned the next year. In connection with his oldest brother, Daniel, who furnished most of the capital, and another brother, Edmund B., he started the business on Church street. Daniel retired in 1833, when the firm became E. B. and E. C. Kellogg, and so continued till 1867, when Gen. William H. Bulkeley bought an interest, and the name was changed to Kellogg & Bulkeley. In 1871 it was incorporated as the Kellogg & Bulkeley Co. Gen. Bulkeley was elected president and Wallace T. Fenn, secretary. These positions they have filled continuously since. The company employs a corps of artists and designers, and does all the work on its own premises. Its customers are found in all quarters of the country and abroad. The business was successful from the outset. Since the date of incorporation the company has never failed to pay a regular dividend. For a long period the rate has been two and a half per cent. quarterly. The location is 175 Pearl street.

COLT'S PATENT FIRE-ARMS MANUFACTURING COMPANY.—Not till recently has Hartford realized the depth and permanence of the work accomplished by Col.

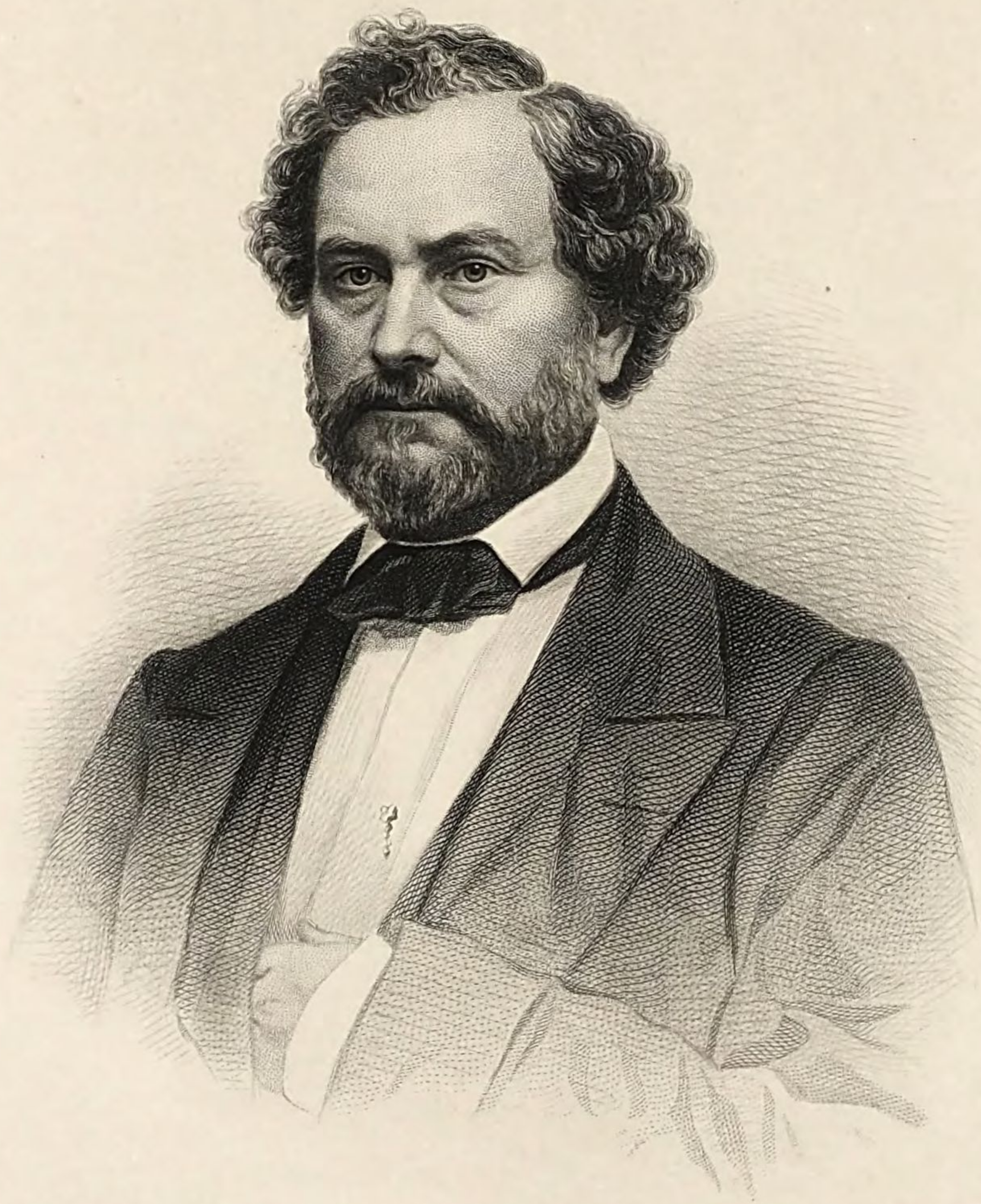
Samuel Colt. Contrary to the common opinion, the swift expansion of his trade, the sudden evolution from small beginnings to a vast armory, the inflow of almost fabulous wealth, and the extraordinary impulse thus given to the growth of the city. They felt, too, the force of his personality that no difficulties could daunt, and before which obstacles of every kind seemed to vanish away. But they did not see that he was setting up models of perseverance and training men in habits of thoroughness that were destined to give a distinctive character to the industries of the town.

Born at Hartford, Jan. 27, 1802, he was the third son of Christopher Colt, and on the maternal side grandson of John Caldwell, a leading merchant of the Connecticut valley, equally noted for enterprise and public spirit. Major Caldwell was president of the Hartford Bank from 1811 to 1819, and of the Hartford Insurance Company (Merchants Bank) from 1819 to 1827. He was also extensively engaged in foreign trade. His fortune, however, was dissipated by the depredations of French privateers, wasted away during the troubles of England and New England by the War of 1812. His sons-in-law were involved in similar disasters, so that the lad whose cradle was rocked in affluence was forced to begin his career in the struggle of life.

At the age of ten he entered his father's factory at Ware, Mass., and at fourteen was sent to a boarding-school at Amherst, but preferring to gain knowledge in a broader field, he shipped before the mast for Calcutta in July, 1827, and on the voyage made a number of experiments with the germs of the future revolver. Returning home, he again entered his father's mill, where, under the tuition of William T. Smith, a chemist in charge of the dyeing and bleaching department, he obtained a practical acquaintance with chemistry. At the age of eighteen, with the knowledge and dexterity acquired in the primitive laboratory at Ware, he made his second venture alone into the great world under the name of Dr. Coult, as a lecturer upon nitrous-oxide gas. His tour extended from Canada to the Gulf of Mexico, and covered a period of over two years. He often experimented before full houses, and thus obtained the means for developing the invention which even at this time seems to have held him with the strength of an absorbing passion. While most boys are still at school or under the tutelage of parents, he had visited the antipodes, instructed large audiences from the pulpit, and multiplied by six the effectiveness of the pistol. In the years 1834 and 1835, respectively, he obtained patents in Great Britain and the United States for a rotating cylinder, containing several chambers to be discharged through a single barrel.

In 1836 the Patent Arms Manufacturing Company was established at Paterson, N. J., for making the revolvers, with a proposed capital of \$300,000, about one-half of which was paid in. Colonel Colt put forth strenuous efforts to have the Government adopt the weapon, but two boards of United States officers reported against it. Meanwhile, under the pressure of necessity many were sold at reduced prices to Texan rangers, and played an important part in winning Texan independence. Later, the revolvers were used by a few of our troops with great effectiveness in the Seminole war, the savages becoming utterly disheartened on finding that their pursuers could keep up a deadly fire without stopping to reload. Thus, in spite of official criticism and condemnation, the pistol forced recognition of its merits by actual tests on the battle-field. Although in 1840 another able board of army officers, aided by the light of experience, reported unanimously in favor of the weapon, the Paterson company failed in 1842 from lack of patronage.

In 1847, at the instance of General Taylor, the government ordered one thousand from Colonel Colt at \$28 each, for use in the Mexican War. Colonel Colt



Ever faithfully yours
Sam. Colt

Engraved by H. Wright Smith from a photograph by Brady.

provided new models, embodying many improvements, and from lack of facilities assigned the contract to Eli Whitney, who had a poorly-equipped armory near New Haven. The need of haste was urgent. The manufacture of the barrels and cylinders was sub-let to Slate & Brown, Dwight Slate meanwhile both inventing and making some of the most important machinery used in the work. After heroic but disheartening struggles, the hour of triumph had come. Thenceforward, success followed success with a rush then unparalled in the history of American manufactures. Various patents sold after the Paterson failure, Colonel Colt obtained again by purchase.

In 1848 he provided a plant of his own in Hartford, occupying at first the premises west of the present Hartford Fire Insurance offices, and moving soon after to more commodious quarters on Mechanic street. Urged forward by the inflow of business, he conceived the idea of building an armory that should surpass any private armory on the planet. Meanwhile, the public, dazed by the vastness of his plans, gazed with incredulous wonder upon their swift and successful accomplishment. In 1852 he bought a large tract in the south meadows, within the city limits, which he enclosed with a dyke one and three-fourths miles long, twenty feet high on the low grounds, and one hundred feet wide at the base, narrowing to a driveway of forty feet on top. Its walls, strengthened and beautified by willows, afford sure protection against the heaviest freshets of the Connecticut. The armory was begun in 1854, and was ready for occupancy in the fall of 1855. It consists of two parallel buildings five hundred feet long and four stories high, connected at the centre by a building five hundred feet long, the whole resembling in form a capital H. Offices and ware-rooms were added at convenient locations. To keep pace with the rapid expansion of the business, in 1861 the structure was practically duplicated. Within the enclosure were also erected dwellings for the workmen, a public hall and a library.

Like most born leaders, Colonel Colt exercised keen discrimination in the choice of his assistants, whom, in spite of stern discipline, he held with hooks of steel, through the spirit of fairness, kindness and generosity that pervaded his intercourse with them. Quick to discover merit, he also rewarded it profusely when devoted to his service. The combination of intellectual forces grouped around him, as the business developed, had then rarely been equalled in this country. His own personal force and magnetism were so irresistible that, when a penniless youth of twenty-one, he could persuade hard-headed capitalists to invest \$300,000—then a much larger sum than now—in a plant for the manufacture of his pistol. The project failed, not because his enthusiasm rested on an unsubstantial or insufficient basis, but because he was far ahead of the age, and the task of educating the public in time to avert the catastrophe was too heavy for a single boy. When at length prosperity brought opportunities for the full exercise of his mental resources, the doors of cabinet ministers and kings flew open at his bidding, while in his presence the ablest recognized their peer.

In 1849 Colonel Colt secured the services of Elisha K. Root, a machinist, who had learned the trade from its rudiments, and who had been the master-mind in rejuvenating and modernizing the axe factory at Collinsville. Placed at the head of the mechanical and manufacturing departments, Mr. Root brought to the position rare inventive skill, guided by sound judgment, and a constant purpose to reach the best results by the simplest methods. Aided by other bright minds, he was indefatigable in devising and constructing machinery for making all similar parts of the revolver interchangeable, and for producing them cheaply. A full treasury furnished the workers with ample facilities for elaborating their ideas. The armory became a gen-

absolute excellence, even if beyond the standard. Under the tuition of Colonel Colt, Lord and other teachers, subordinate workers elsewhere, many in positions of prominence of their work. The union of mental and physical effort to push far ahead of anything previously known, in the complete adaptation of mechanical skill to the first cost of a machine, provided it was well knowing that the most perfect appliances

will show the deep and widespread influence of the center, by giving the biographies of its most prominent men. It has furnished organizers and presidents of the Weir Sewing Machine Company, the Hartford Billings & Spencer Company; to Yale University professor; and going farther from home the circle of influence within our limits.

orders for the pistol came in ceaseless and swelling from the powerful empires, but from lonely frontiers and from the demand. Machinery for the work was both invented and perfected. From this department several foreign armories were

Colonel Colt began to experiment with submarine explosives, and the torpedo for harbor defence. Later, sending the electric current, he blew up ships in motion by means of concealed batteries. The government to adopt his system; but here also he was too far from the more than a transient interest. He was the first to devise a submarine electric cable, having thus, in 1843, successfully connected New York city with islands in the vicinity.

Colonel Colt married at Middletown, Conn., June 5, 1856, Miss Elizabeth H. daughter of Rev. William Jarvis, a lady of rare gifts and graces. Two years later the party sailed for Europe. At St. Petersburg they witnessed the coronation of Alexander II., and took part in subsequent fêtes. Early in 1857 they returned to their elegant home, "Armsmead," recently built on a plateau overlooking the city and the valley of the Connecticut. Here, amid domestic joys, Colonel Colt found happy relief from the exactions of a business that encircled the globe. Two sons and two daughters were born, and here death entered early to claim the number. A spirit unconquerable in the long fight for material success was weakened by these bereavements.

Colonel Colt projected colossal schemes that, had his life been spared, might have made Hartford the Rome of America. Among them was a plant for making cannon on a large scale. But suddenly, almost without warning, he passed away, January 10, 1862, in the meridian of his powers. At the funeral fifteen hundred persons from the army, with tearful eyes, lined the pathway to the grave.

The care of a widely extended but well-organized business and of a large estate was thrown upon Mrs. Colt. She has managed its affairs with a wisdom that has preserved its integrity, and with a profusion of refined hospitality, that has given tone to the social life of the city. Her benevolence has found outlet in acts of charity and in the support freely given to organized efforts in



Caldwell A. Holt.

behalf of education, religion, and kindred claims. The power conferred by wealth and talent has been uniformly exerted to promote the happiness and welfare of others.

The Colt Patent Fire-Arms Company had been incorporated in 1856. Elisha K. Root succeeded Colonel Colt as president, and held the position till his death, July 5, 1865. He was followed by the present incumbent, Richard W. H. Jarvis.

February 5, 1864, the original armory was destroyed by fire, involving an estimated loss of \$800,000 in machines, and \$400,000 in stock, besides valuable models and drawings. The buildings were restored fire-proof on the old foundations. One-half of the armory was saved, and in this the work went on without interruption.

On the armory grounds in 1868 Mrs. Colt built the Church of the Good Shepherd as a memorial to her husband. It was designed by Edward T. Potter, and has been greatly admired by connoisseurs both for general effects and for the idealism embodied in the architecture.

To pistols, rifles and shot-guns the company has added from time to time the manufacture of gun machinery, Gatling guns, printing presses, portable steam-engines, the Colt automatic machine gun, brought out in 1895, the mechanism operated by powder gases, etc., etc.

After the death of Mr. Root, Gen. William B. Franklin was for many years vice-president and general manager, but was succeeded, April 1, 1888, by Caldwell H. Colt as vice-president, and by John H. Hall as general manager.

Caldwell H. Colt died in Florida, January 21, 1894, at the age of thirty-five. He early showed great love of the sea and became an accomplished sailor. In 1881 he bought the "Dauntless," afterwards cruising in many waters, and taking part in several famous races. At the time of his death he was commodore of the Larchmont Club, and had been vice-commodore of the New York Yacht Club. Brave, generous and devoted to American yachting interests, he was beloved by a wide circle of friends.

As a companion to the Church of the Good Shepherd his mother decided to erect near by for a lasting memorial of her son, an edifice designed to further the physical, mental, moral and spiritual well-being of members of the parish, and of all others who may choose to avail themselves of its privileges. Mr. Potter, architect of the church, was recalled to prepare the plans. Into the design he has thrown the freshness and ideality characteristic of his work. The structure is one hundred and twenty-four by sixty feet, and sixty-four feet to the roof-ridge. On the ground floor are bowling alleys, billiard tables, and arrangements for other games, stallage for bicycles, and conversation-rooms for both sexes. On the floor next above are separate rooms for the library and for reading, for a sewing and a cooking school, for the Dorcas Society, for committee meetings and for assembly. The uppermost floor affords a large hall for lectures and concerts, and for dramatic and other entertainments. Opening into it is a study for the rector and a class-room that can be used as a stage. On one side of the hall is a tribune, containing memorial inscriptions and a full-length portrait of Commodore Colt, painted by Eastman Johnson. On a mezzanine story provision is made for the storage of seats, scenery and for kindred purposes. Every floor is supplied with dressing-rooms for both sexes.

It is built of Portland free stone, trimmed with Ohio free stone. It was the original plan of the architect to exclude wood wholly from the construction, and this has been, to a large degree, accomplished.

The stone carvings show the foliage of the principal trees indigenous to the state of Connecticut, flowers found in the grounds of Armsmear and in the meadows

around the building, contrasted with shells and other emblems of the sea. The stone corbels are carved in the form of prows of vessels of state, war, commerce and pleasure. The iron roof is surmounted by a spirelet, rising forty-eight feet above the roof, and terminated by a cross which at night can be illuminated by electricity. It was dedicated with appropriate ceremonies September 10, 1896.

Present officers of the company, Richard W. H. Jarvis, president ; John H. Hall, vice-president and treasurer ; F. E. Belden, secretary ; and L. C. Grover, superintendent. Capital, \$1,000,000.

A FATAL MOVE.—In 1852, the Sharps Rifle Manufacturing Company bought from Christian Sharps the patents for a breech-loading rifle, and contracted with Robbins & Lawrence, of Windsor, Vt., to make five thousand at that place, and also to build a factory in Hartford with a capacity for turning out twenty thousand a year. Its actual capital was \$100,000, afterward increased to \$125,000. For a long period the company was highly prosperous. Out of profits it paid for the building and equipments, returned the original investment to the owners and declared large dividends. Owing to an unfortunate bargain with the promoter of the enterprise, to take effect only when it should reach an entirely unexpected degree of success, but which came before twenty years had elapsed, the owners dissolved the company about 1873, with a division of assets among the shareholders.

Another combination bought the patents and machinery. In an evil hour, the new company yielded to the blandishments of a sister city, surrendering in return for gilded fruit the solid advantages of Hartford to move elsewhere. Largesses proved a rueful compensation for the loss of wise supervision and trained labor. For years the name painted in large letters on deserted walls told in silence the story of decay and death—a monumental warning to reject the allurements of donatives when tempted to swap certainties for uncertainties.

THE CASE, LOCKWOOD & BRAINARD CO.—Like all the industries of Hartford which have achieved solid and enduring prosperity, this establishment began in an humble way, winning success by good management and good work. Perhaps the house under consideration differs from its compeers most widely in the length of time through which the leading men in the management were associated in harmonious and effective co-operation.

In January, 1836, Newton Case and E. D. Tiffany bought for \$4,500 the printing office of J. H. Wells, located where the *Courant* building now stands. Mr. Case, the capitalist of the new venture, had only \$700, but friends, who had observed his habits, readily furnished the money and credit to close the trade. A. D. Waters, a partner of Mr. Case in copper-plate printing, was also admitted into the firm. Mr. Tiffany, foreman in the office of Mr. Wells, took charge of the mechanical department, while Mr. Case kept the accounts and managed the finances.

The original firm, known as Case, Tiffany & Co., began operations with eight Wells hand-presses, one Ramage press, and the type to correspond. Stereotype plates were then rare, and electrotypes unknown. An Adams press of the first patent was soon added to the equipment, and for two years was run by hand-power.

One year after the formation of the firm the panic of 1837 struck the country. During the months that preceded the storm the partnership prospered, reducing their indebtedness to \$1,000. For this sum the obligation fell due at a time of critical stringency in the loan market, when Mr. Wells expressed a willingness to take back the property in settlement of the claim. Mr. Case, however, had traveled too far on the road toward success to surrender or retreat. He succeeded in raising the amount, and the final payment was made.

In January, 1838, Mr. Waters withdrew. Early in the same year Messrs. Case & Tiffany bought the printing-house of Philemon Canfield, then the largest in the state, and admitted Leander C. Burnham, one of the workmen, into the partnership. The purchase added to the equipment five power and nine hand presses, a large amount of type and a steam engine.

Having outgrown their first quarters, the firm leased for five years the premises at the southwest corner of Pearl and Trumbull streets, built in 1793 for a county jail and tavern. The many alterations required were quickly made, the steam engine was transferred, and in April, 1838, the new office was opened. In 1841 they purchased the property.

Business showed few signs of revival till 1840, when indications of improvement began to reawaken a spirit of hopefulness and enterprise. Believing that the tokens were not illusive, the firm bought the stereotype plates and unsold stock of the Cottage Bible—a commentary in two royal octavo volumes—and before the plates were laid aside had sold over two hundred thousand copies. Here, too, for the first fifteen years, Webster's Unabridged Dictionary was printed and bound, keeping from six to eight presses constantly at work. School books were manufactured in large quantities, one having reached a circulation of one hundred and sixteen thousand. Success with the Cottage Bible led the firm on till many other works were added to the list of subscription books published by them, and the field was diligently cultivated with satisfactory results.

In 1848 Mr. Burnham died. In 1850 the remaining members erected on Trumbull street, south of the "old jail," a building fifty by sixty-four feet, five stories high, placing a new engine in the basement and fitting up a book-bindery above. In 1853 James Lockwood and Albert G. Cooley were taken into the partnership. In 1857 Messrs. Tiffany and Cooley retired. In January, 1858, Mr. Leverett Brainard became partner in the firm. The association of Messrs. Case, Lockwood and Brainard remained unbroken until the death of Mr. Lockwood, January 13, 1888.

The war so added to the volume of business that the old accommodations became inadequate, and in 1865 a brick building was erected just west, on contiguous ground. After the demolition of the jail the next year, the corner building was erected. This is five stories above the basement, one hundred and thirty-five feet long by forty wide, exclusive of an L for stairways, elevator and closets.

In January, 1868, the name was changed from Case, Lockwood & Co. to Case, Lockwood & Brainard, and January, 1874, under a special charter from the state, the establishment was organized as "The Case, Lockwood & Brainard Co."

Mr. Case died September 14, 1890, in the eighty-fourth year of his age. For a long period he had been a trustee and devoted friend of the Hartford Theological Seminary, to which he made large bequests. He had previously furnished the means for building for the seminary the Case Memorial Library, and for adding thousands of volumes to its collection.

Nearly twenty years ago the firm withdrew from the subscription trade. This is the largest general printing-office in New England. They manufacture a great many books for others, but have nothing to do with their sale. Genealogical work has grown into a special feature. They also make on a large scale diaries and pocket memorandum tablets. From this department alone are goods sold to the trade. All other work is done for patrons on special orders or contracts.

Capital, \$400,000. Officers are: Leverett Brainard, president and treasurer; Marcus A. Casey, vice-president; J. H. Turner, assistant treasurer; and John Reardon, secretary. Mr. Brainard was elected mayor of Hartford in the spring of 1894.

On the same premises, William H. Lockwood, son of James Lockwood, has a very complete plant for electro-plating. He not only does the work of the above company, but his trade extends through the New England states.

CHAPTER LXXXI.

THE MANUFACTURING INTERESTS OF HARTFORD—*Continued.*

JEWELL BELTING COMPANY.



PLINY JEWELL, SR., born at Winchester, N. H., in 1797, came to Hartford in 1845, and began active life in his new home by running a tan-yard near Little River, on what is now Bushnell Park. For several generations his ancestors in the male line had been tanners, so that he brought to the work all the knowledge and skill of the time. In 1848 he opened a shop on Trumbull street for making leather belts, having been the third person in America to engage in this special business. The father and his sons after him did much to educate the manufacturers of the United States, and indirectly of Europe, to substitute this means for the conveyance of power in place of the costly and cumbersome system of gearing, then largely in use. For a number of years work in the shop was performed almost entirely by hand, the few mechanical appliances employed being rude and primitive. Four of the sons—Pliny, Jr., Marshall, Charles A., and Lyman B.—were successively admitted into the partnership, which, under the name of P. Jewell & Sons, soon won a world-wide reputation for the magnitude and excellence of its product.

In 1863 the firm bought the plating factory of the Rogers Bros., at the corner of Trumbull and Hicks streets, which they enlarged and partially rebuilt. The structure is now one hundred and eighty-five by forty-four feet, five stories high, with an L of three stories. With an abundance of room and steam-power and machinery—invented mostly by manufacturers of shoes, but adapted by the firm to the requirements of belt-making—the business, under the stimulus imparted by the war, expanded with great rapidity.

About 1856 they established a tannery at Detroit, Mich., where, for twenty-five years, their leather was chiefly prepared. At present they are operating large tanneries both at Rome, Ga., and Jellico, Tenn., whence their materials for belting are now exclusively drawn. With the destruction of forests in Michigan, it has been found more profitable to use the works at Detroit for the production of other grades of leather, the proximity of an abundance of oak giving to the southern locations an advantage which greatly outweighs the disadvantages.

In 1869, at the ripe age of seventy-two, Pliny Jewell, Sr., passed away, having lived to see the establishment he founded the largest of the kind in the country, and bequeathing, as a still more precious inheritance, the record of a noble and spotless life. After a brief illness, Marshall Jewell followed, in February, 1883, at the high tide of vigorous manhood, crowned with honors and beloved by a wide circle of devoted friends. Having served three terms as governor of Connecticut, he was appointed United States Minister to the Court of St. Petersburg in 1873. While there he negotiated the trade-mark treaty with Russia, and discovered the process of mak-

ing scented Russian leather, and was afterwards instrumental in introducing its successful manufacture into this country. The following year he was recalled to take the position of Postmaster-General in the Cabinet of President Grant. At Washington he endeavored to conduct the affairs of the department on strict business principles, becoming, in the execution of the policy, the terror of lazy clerks and dishonest contractors. Questionable schemes found in him a watchful critic, and fraudulent ones an unrelenting foe. During his administration the efficiency of the service was greatly increased, and the expenditures diminished. He plowed up old abuses without stopping to count the personal cost or consequences, and introduced new methods which worked so admirably that no successor has dreamed of changing them.

But the path of the reformer in public affairs does not lead through green pastures or beside still waters. The mild approval of good men—a tenuous support in the wear and weariness of prolonged conflict—opposes feeble resistance to the organized hostility that strikes back through a thousand open and secret channels. Individual efforts to checkmate the semi-respectable predatory class that encamp in force around most public treasuries from which many millions are annually disbursed, end in final martyrdom, except at infrequent intervals when, under the provocation of some special enormity, the people rise against the offenders in short, but possibly sharp and decisive, spasms of indignation.

July 14, 1876, Governor Jewell retired from the cabinet. In 1880 he was called to take the chairmanship of the Republican National Committee and performed a leading part in directing the contest which ended in the election of President Garfield.

Harvey Jewell, the only son not a member of the partnership, practiced law in Boston, and was one of the judges of the Court of Alabama Claims. He died December 8, 1881.

Under an act of incorporation granted by the state in 1881, the Jewell Belting Company was organized in 1883, as successors to P. Jewell & Sons. All the stock is owned by the family and a few employees. More than \$1,000,000 is invested in the business, about one-half in Hartford and the rest in conducting ancillary business elsewhere.

The leather in use is made of the best native steer hides. Only the heaviest and such as are entirely free from blemishes are selected. The time required in the process of tanning runs from eight months to a year, according to weight of stock. The process cannot be hastened, as the hide must be kept in its natural plump condition from the moment it enters the vat till it comes out tanned leather.

Even before the war the company were making belts from thirty-six to forty inches in width. In Europe they could not believe this. About 1860, when questioned on the point by the manufacturers of Manchester, England, Marshall Jewell, to save his reputation for veracity, struck off a third and replied that they were producing them twenty-four inches broad. From the expression of incredulity that overspread the faces of his auditors, he saw that they looked upon the stories of Americans, like their rivers and mountains, as too big for a small island.

The company has long held the record for large belts. In the spring of 1895, for the Washburn & Moen Manufacturing Company, of Worcester, they made one seventy-eight inches in width, one hundred and eighteen feet long, and one inch thick (four-ply), guaranteed to transmit, safely and easily, two thousand horse-power. It weighed three thousand two hundred and eight pounds. This is the largest leather belt in the world.

In 1881, to meet the growth of the business, the company added a brick building, of mass-work, thirty-six by sixty feet, rising five stories above the basement, and at the same time built new rooms for the private use of the executive officers. These are: John Jewell, president; L. B. Jewell, vice-president; Charles A. Jewell, treasurer, and Charles H. Newton, secretary.

A closely related industry is the Jewell Pin Company, being largely owned and managed by the same parties. It was chartered in 1881, with a capital of \$60,000. The works, in the rear of the belt works, consists of two buildings, each eighty by twenty-five feet, and two stories high. The machines are all made on the premises, and each one is capable of turning out one hundred and sixty pins a minute. As there are ten of each, if all were running they would produce three million eight hundred and forty thousand in a day of ten hours. By a single process the wire is cut, heated, sharpened and polished. After passing through a process of whitening and cleaning in bulk, the pins are put upon papers by other machines equally ingenious. The company makes over thirty sizes.

John Jewell, president; L. B. Jewell, vice-president; F. B. Wilson, manager and secretary, and Charles A. Jewell, treasurer.

ELECTRO-SILVER PLATING.

THE WM. ROGERS MANUFACTURING COMPANY.—Hartford is the birthplace of the electroplating industry as applied to table-ware. In the year 1846 the brothers Asa H. Rogers and Simeon S. Rogers, after much experimenting, succeeded in electroplating articles made of German silver, britannia and other metals. The business began obscurely in a cellar at No. 6 State street. With such favor did the goods meet that a stock company was formed in 1851, and a factory built which now forms a part of the works of the Jewell Belting Company. In 1862 the company was dissolved, William Rogers having left in 1857 to form a new partnership, and Asa H. and Simeon S. having followed in 1858 to start a rival shop in Waterbury. On the dissolution of the stock company in 1862, the three brothers again united their names in Meriden, under the firm-name of "1847 Rogers Brothers." After a time the trade-mark was leased to the Meriden Britannia Company, which has used it ever since. In 1865 William Rogers resumed business in Hartford on Front street, and the concern was incorporated in 1872 as the Wm. Rogers Manufacturing Company. Asa H. Rogers, with his nephew, William H. Watrous, in 1871, opened a factory on Asylum street, under the corporate name of the Rogers Cutlery Company. Asa H. withdrew the next year and died in 1876, having meanwhile given up active work.

In 1879 the two concerns made a contract, running for twenty-five years, to do a joint business under the exclusive control of William H. Watrous, who became owner of one-half the capital stock of The Wm. Rogers Manufacturing Company, and has since been president, treasurer and sole manager of the united interests.

Having outgrown the premises at the corner of Front and Grove streets, the union moved, in 1887, into their present quarters, Nos. 66-80 Market street, where they have ample room and facilities. Through both elegance of artistic designs, and superior thickness and durability of plating, they have largely added, since 1879, to the reputation of the Rogers imprint, already esteemed so valuable that costly legal battles have been fought for the trade-mark. Their sales exceed three-quarters of a million a year. The market for their goods is not confined to the United States, but extends to all the civilized world where the best grades are demanded.



Wm. Watrous

Officers, William H. Watrous, president, treasurer and general manager ; George W. Watrous, secretary.

The history of William H. Watrous has been essentially given in the story of the great industry which his labors have contributed largely to build up and solidify. Born at Hartford July 18, 1841, and educated in the public schools, he early learned the trade of electro-silver plating in all its branches, in the factory of his uncles. In 1865 he was placed in entire charge of this department of the Wm. Rogers Manufacturing Company. Since 1870 he has been the central figure in the battles fought over the trade-mark that have immortalized the name of Rogers in connection with the art they introduced, and in the struggles that have made the industry a financial success. In 1890 he started at Norwich, Conn., a factory for making steel knives. Though known as the Norwich Cutlery Company, it is owned wholly by Mr. Watrous. About one hundred hands are here employed. In 1895, with others, he formed the Eagle Sterling Company, in Glastonbury, Conn., to make goods of sterling silver. In 1894 he was elected to the legislature from Hartford.

THE BARBOUR SILVER CO.—The enterprise now known by the above name moved from New York city to Hartford in 1887, bringing a corps of skilled workmen. Parties controlling it bought for a factory Kohn's Hall, a large building in the rear of Market street, and have since made important purchases of real estate, besides erecting three extensions to meet growing needs. To the manufacture of electro-silver-plated hollow table and toilet ware, they have lately added a fine line of solid sterling silver table ware. Branches for the distribution of goods are maintained in Chicago, St. Louis and San Francisco. In June, 1892, the company was incorporated on a modest capitalization of \$100,000. The next year it absorbed the Hartford Silver Plate Company, and now grades with the leading houses of the country. President, I. J. Steane ; Secretary, Samuel L. Barbour ; Treasurer, John L. Dalglish.

THE PITKIN BROTHERS & CO.—Most of the prominent families of Connecticut during the eighteenth century found in politics and in the professions spheres for the exercise of their superfluous energies, but the Pitkins were irrepressible leaders in the modern industrial movement, which long struggled against heavy difficulties, but which, after the adoption of the Constitution of 1818, soon took a foremost place in winning wealth and influence.

Organized in 1849 as Bidwell, Pitkin & Co., and changed to the present form in 1860, this firm ranks high in the manufacture of steam boilers, iron and steel-plate work, steam engines, feed-water heaters and steam supplies. Their low-pressure steam and hot-water heating apparatus has a large sale throughout the northern states.

Of the many churches and school-houses heated and ventilated by the system of which they are the inventors, the contracts in some of the largest, including Dr. Hall's, on Fifth avenue, New York city, were awarded to them on the merits of the system over numerous competitors with little regard to other bids either above or below.

In 1873, the board of American engineers, at the Vienna Exposition, solicited Pitkin Brothers & Co. to send thither a seventy horse-power boiler to run the machinery of the American department. The boiler did such excellent service that it brought a high award, and was purchased by a foreign house for its own use.

As a dealer in lead pipe, A. P. Pitkin early recognized the perils from lead poisoning, and applied himself to the task of discovering a practical remedy. After much travel and no small difficulty in finding a house that would consent to fit up to do the requisite mechanical work, he succeeded, in 1855, in introducing, as a substi-

tute, the first galvanized pipe ever used in cities for the distribution of water, Hartford having led the way in the adoption of the method. It has since come into almost universal use, and millions of feet are made annually. The firm have also been large manufacturers and builders of gas-works, having established many plants in cities, towns and villages. They have, besides, recently built over twenty patent water and fuel gas works.

The firm have furnished twenty-one boilers for the school houses of Hartford, also boilers for the state capital, county court house, jail, insane retreat, hospital, and for other public buildings and private residences to the number of over one hundred in the same city.

Albert P. Pitkin died February 21, 1892. His brother, Norman T. Pitkin, who began business in Hartford in 1849, and who had been in partnership with Albert P. since 1857, succeeded to the interest of the estate and is now sole owner and manager. Of the "Patent Domed Head Vertical Boiler," lately introduced, he has already built over three thousand horse-power. The concave and convex head, it is claimed, is the strongest form known to mechanics. Of this pattern he has turned out stationary shell-boilers of four hundred horse-power each, carrying high-pressure and superheated steam. The plant is located at No. 152 State street.

JAMES L. HOWARD & CO.—James L. Howard came to Hartford in 1838, and in 1841 formed a partnership with Edmund Hurlburt, under the firm-name of Hurlburt & Howard, dealers in carriage and saddlery hardware, with a store in the building next north of the City Hotel. After a lapse of three or four years, Mr. Howard bought the interest of Mr. Hurlburt, and for a while continued the business alone, but subsequently admitted his brothers, one after another, to the partnership, which then became known as James L. Howard & Company. The firm moved to Asylum, near Blain, about 1848, when there were no stores, and but few scattered residences within the city limits westward.

The firm was the first in the United States to enter in a broad and systematic way upon the manufacture of railway-car trimmings, and soon, seeing the advantage of devoting its entire energies to the development of this branch, gave up the saddlery-hardware line. For a long period it was the leading house of the country in furnishing railway supplies, and still retains a very prominent position, though located several degrees eastward of the railway centre. Many of the notable inventions which add to the comfort and safety of the traveler and to the ornamentation of the coach have been introduced by this establishment.

In 1846 the firm built their extensive block and factory on Asylum street, near the station, where the business has since been carried on, and in 1876 was incorporated under a special charter from the state as James L. Howard & Company.

Mr. Howard has long been one of the most trusted counsellors in the Baptist Church of America. In 1886 he was elected lieutenant-governor of Connecticut.

Capital, \$200,000. James L. Howard, president; George E. Howard, vice-president; Frank L. Howard, treasurer; Charles P. Howard, secretary.

THE PRATT & WHITNEY CO.—In 1852 Francis A. Pratt came to Hartford to take a position in the pistol factory of Colonel Colt, at the solicitation of Samuel H. Bachelior, one of the subordinate chiefs in the establishment. In 1854 he accepted the superintendency of the Phoenix Iron Works, and, accompanied by Amos Whitney, his life-long associate, as assistant, remained with the firm till after the outbreak of our Civil War. Before closing the connection, both of the young men resolved to open a shop of their own, and accordingly, in the summer of 1860, hired a room on Pott-
g some of their first work for the Willimantic Linen Company.



Norman D. Pitkin

The next February they were burned out by a fire which caught on the contiguous premises; but a month later were settled in Wood's building, in the rear of the *Times* office, where they continued to spread through one room after another till all the available space was outgrown by the expansion of the business. In 1862 Messrs. Pratt and Whitney took into partnership Monroe Stannard, of New Britain, each contributing \$1,200, and the association has since remained unbroken.

The firm, in 1865, erected the first building on the present site, a structure of four stories, containing forty thousand square feet of flooring. It was ready for occupancy the following March. From time to time others have been added till the plant now occupies about five and a half acres, equipped throughout with the most approved appliances for protection against fire, for the comfort of the hands, and for the convenient and economical dispatch of work. The property lies on both sides of Park river, with the tracks of the Consolidated and of the New England railways on the northern border, about one-fourth of a mile from the passenger station. Side tracks admit heavy freights directly to the doors.

Beginning with the manufacture of machine tools, gun tools, and tools for the makers of sewing machines, the firm has gradually extended its lines till a partial catalogue of its product fills hundreds of pages. The invention of the type-writer and of the bicycle materially enlarged the demand for tools. Since the advent of these industries the company has largely supplied manufacturers throughout the country with appliances for doing the work. Here, in applied mechanics, the resources of science and art have been long and conscientiously devoted to the task of embodying the ideal in the real. A poor piece of work was never knowingly allowed to be done on the premises. To the mind of every one conversant with the business the imprint of the establishment signifies simplicity, strength, precision, elegance, durability, and complete adaptation of means to ends. Essential as is the question of prices and profits, it has here always ranked secondary to the question of materials and workmanship.

On taking an inventory shortly after removal from Wood's building to the new factory, the firm found that net assets of \$3600, in 1862, had grown during the interval of four years to the handsome sum of \$75,000, a striking evidence of good management amid general prosperity. At this time Roswell F. Blodgett and Seth W. Bishop were admitted to an equal interest with the other members in the partnership. During the next three years they made and put in the business a clean profit of \$100,000. July, 1869, under a charter from the state, The Pratt & Whitney Company was incorporated with a capital of \$350,000, increased, mostly from earnings, to \$400,000 in 1873, and to \$500,000 in 1875.

Soon after the close of the Franco-German war, in 1870, an agent of the company visited Prussia, and discovered that both imperial and private gun factories were equipped with inferior tools and machinery, and that the national armories were bare. He brought the merits of the Pratt & Whitney Company to the attention of a Berlin engineer, who became deeply interested, and who a few months later called Mr. Pratt thither. The latter started at once, and after an absence of six weeks, two of which were spent at Berlin, returned to Hartford with orders from the German government for gun machinery to the value of \$350,000.

Within the next three years Mr. Pratt made three trips to Berlin, taking orders and delivering to the government goods worth over a million and a quarter dollars. While the panic of 1873 prostrated the industries of the United States, the company was kept busy on European orders till 1875.

From Hamburg, the port of delivery, the war office made distribution of the

machines to three different imperial gun factories. By a supplementary contract The Pratt & Whitney Company agreed to superintend its erection and to instruct native mechanics how to operate it. So delighted were the authorities with the result that, departing from precedent, they forwarded a letter from which the following is an extract:

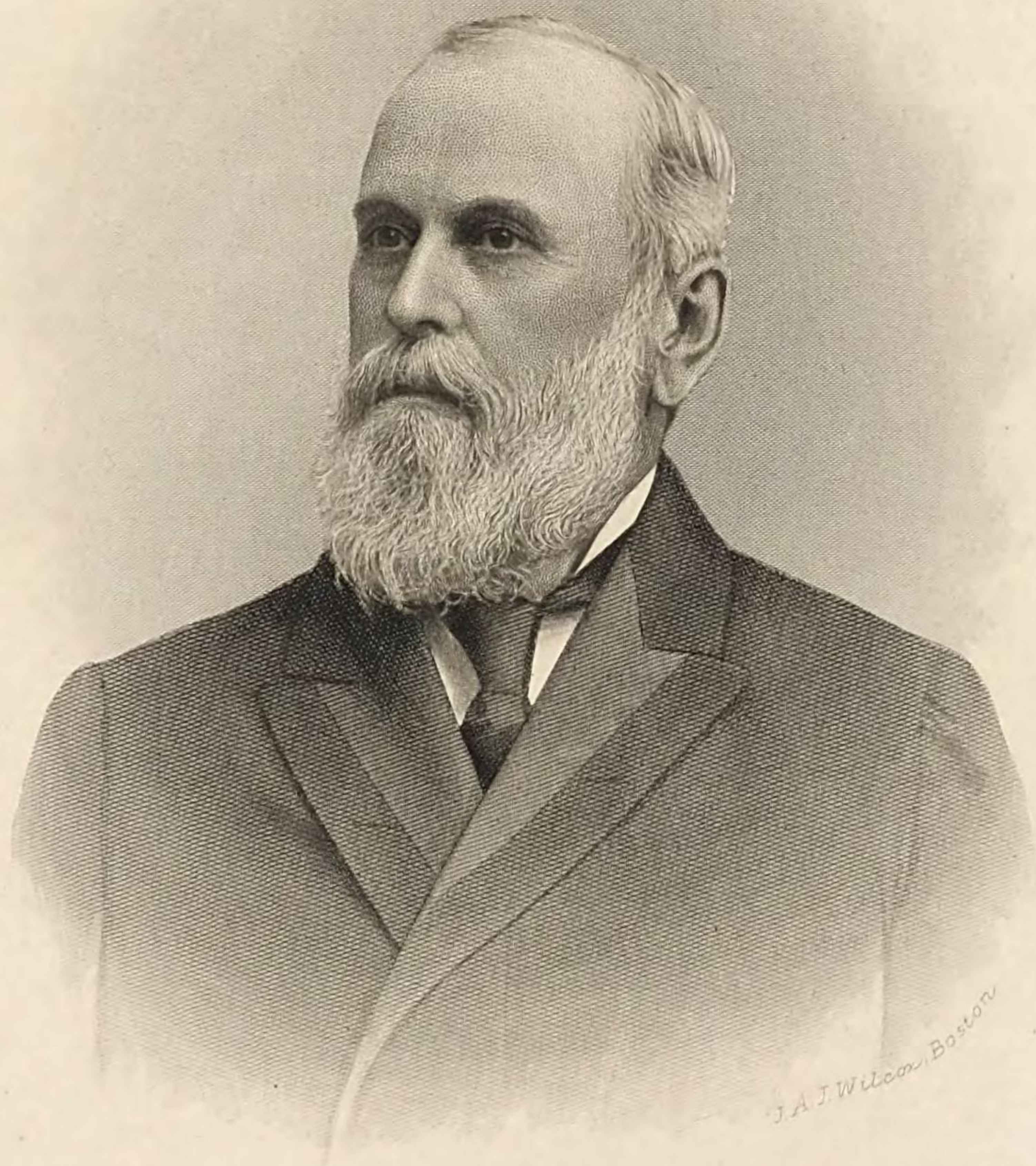
"The Pratt & Whitney Company has furnished the royal armories of Spandau, Erfurt and Dantzig with plans of machinery which execute the work with such nicety and precision as to save one-half the waste, and to render the government in no small degree independent of the power and skill of the workmen."

The company made an invaluable contribution to science, not less than the mechanical arts, by producing, after years of effort and at great expense, a machine for exact and uniform measurements. The troubles which, from lack of standard gauges, beset every large shop, and the growing demand for the production of interchangeable bolts and nuts, early in the sixties led to the general agitation of the subject among mechanical engineers, especially those connected with the building and repair shops of railways with the view of finding, if possible, a remedy for the evil.

For a long time the discussion brought no practical results. At length, early in 1870, William A. Rogers, then professor of astronomy at Harvard College, aided by George M. Stand, a graduate of the Stevens Institute of Technology, and both, backed by the skill and resources of The Pratt & Whitney Company, commenced a series of efforts, continued through the three following years, to elaborate a comparative set of absolutely correct measurements within a limit of one-fifty-thousandth of an inch. When they began, tools for measurements used in different shops did not correspond but varied endlessly. In London and Paris, Professor Rogers obtained a reliable transfer of both the yard and the metre, and with the co-operation of the United States Coast Survey, the most delicate and exhaustive comparisons of the standard bars prepared by him for the use of the company, with the standard yard designated "Bronze No. 11," were completed, thus giving it a set of standards upon which entire reliance could be placed. The minute and exact subdivisions of the yard were transferred by the company to gauges and other tools for the use of mechanics.

Among the benefits secured a few may be mentioned by way of illustration. Railways now find it practicable to have all bolts and nuts of any size perfectly interchangeable. The adoption of definite diameters for centres and tires of locomotive driving wheels has reduced the number of sizes from infinitude to six. The production of pipes and fittings has been brought to uniformity. Standard gauges for these and other uses, too many to be enumerated, are made by the company.

May 21, 1888, the company received its first order for Hotchkiss revolving cannon, and for three and six-pounder rapid-fire guns, from the Hotchkiss Ordnance Company, contractors with the Navy Department. The weapon is constructed on the principle of the Sharps rifle, the application of the idea to cannon having been made possible by the use of metallic cases for ammunition. As long ago as the year 1500 cunning Spanish artisans forged breech-loading cannon from wrought iron, but although they worked on a correct theory they were forced to abandon the experiment because no way of controlling the gases from the powder had then been devised. Specimens in good condition may be seen in Woolwich, England, and elsewhere in Europe. In the military museum at Washington, D. C., are preserved two small breech-loading cannon, brought from Spain by Hernando Cortez and used in the conquest of Mexico. The underlying principle was made available to



H. A. Pratt

shoulder arms by Christian Sharps, and for cannon by B. B. Hotchkiss, a son of Sharon, Conn. One of the old guns at Woolwich is built up from staves wound around with a small rod, the ancestor to which the wire-wound gun of to-day bears a close family resemblance. Modern guns have been made possible only through the perfection of modern machinery.

The company has made over four hundred Hotchkiss guns, mostly to form the secondary batteries of our new war vessels. They are also used at the Indian Head proving grounds, the Annapolis Academy, in the revenue marine and the naval militia.

In 1895 they made fifty one-pounders, with new lock mechanism invented by E. G. Parkhurst, a mechanic of great skill, who entered the service of the company in 1869 as assistant superintendent, and who long had immediate charge of the gun department. He changed the entire mechanism of the breech to suit American ideas. After thorough competitive trials this form was selected as best.

Quite recently, too, after competitive tests, the navy department adopted as the best small arm the invention of James P. Lee, on account of its superior rapidity of action. Mr. Lee secured the English award in 1888.

Many inventors of guns, tools and machines from this and foreign countries bring their crude ideas hither to be embodied in practicable forms. Such conceptions vary indefinitely in originality and value. Some have no root and wither away. A fair percentage, through the aid of local experts, is finally brought out in a shape to win notable success. In all these efforts it is a central aim to secure economy and simplicity of construction by eliminating hand processes.

In 1882 the west building was erected. In 1887 the company completed, on the east side of Flower street, an addition of four stories, containing forty-four thousand square feet of floorage. Some thought the new structure anticipated the wants of a distant future, but it was soon crowded with machinery and workmen. In 1891 they erected, on the south side of Park river, a building two hundred and ninety-five by forty-five feet, two stories above the basement, for the exclusive use of the small tool department. Here are produced in great quantities such articles as taps, dies, milling-cutters, reamers, lathe and planer tools, etc., etc. In 1895 they built a forge-shop, one hundred and sixty-five by sixty feet, and lengthened the original shop about eighteen feet for the enlargement of the offices and the stories above. Nearly every season has brought smaller additions. There are now over two hundred and thirty-three thousand square feet of floorage.

Business with Europe, large at intervals, has settled down into a regular, steady, well-developed trade, fluctuating of course with changes in general conditions. Shipments are made to all European nations except two or three small and backward states. In fact, goods have been delivered to points remote from lines of public transportation, almost as far east as the borders of Siberia.

In 1893 the capital was increased from \$500,000 to \$3,000,000, two-thirds in eight per cent. cumulative preferred, and one-third in common stock. Preferred shares having a par value of \$250,000 were reserved in the treasury for improvements. No cash was paid in.

During the depression which followed the panic of 1893 strenuous efforts were made in this and other shops of the city to keep the men employed. Stock was allowed to accumulate and hours were shortened to forty a week in order to give every employee as large a slice of the loaf as the times would permit. The force dropped from nine hundred and sixty to seven hundred hands, but with the general recovery in 1895, soon rose about one hundred above the highest mark ever attained before. The recovery also brought to every department unusual activity.

Francis A. Pratt has continued president and Amos Whitney superintendent since the date of organization. R. F. Blodgett was first treasurer. In 1878 the mechanical had outgrown the financial side of the business. At this juncture William A. Healy, a man of keen insight and large resources, after a careful inspection of the plant, accepted the treasurership and advanced \$200,000 to restore the equilibrium. At his death in 1885 he was succeeded by Miles W. Graves. Both rendered highly valuable services to the company. Mr. Graves retired in 1893.

Present officers: Francis A. Pratt, president; Amos Whitney, vice-president and superintendent; George M. East, second vice-president and general manager; C. C. Tyler, assistant superintendent; R. F. Blodgett, secretary; J. C. Stirling, treasurer.

Francis A. Pratt was born at Peru, N. Y., February 15, 1827. From early childhood he showed great aptitude for mechanical pursuits. In 1855 he invented a milling machine, of which the Pratt & Whitney Co. have made over five thousand. From this single article the profits have more than paid the combined dividends and salaries which the two founders of the enterprise have drawn from its treasury. As mechanical engineer, Mr. Pratt has planned the buildings and a great deal of machine construction. He has made ten or twelve trips to Europe, and several of them proved eminently fruitful in securing foreign trade.

Amos Whitney was born at Biddeford, Me., October 8, 1832. As superintendent he has watched all the mechanical departments of the establishment. To his care and conscientiousness is due in a large degree the excellence of the product. He has traveled much in the United States, and by personal efforts has secured a large percentage of American orders. For over forty years these two men, brought together casually at first, have toiled in harmonious intimacy to the profit of each other, and to the still greater benefit of those who have trusted them. Both have sons in the company. Francis C. Pratt, a graduate of the Sheffield Scientific School, having learned the mechanical part of the business, is now in the office. He has made several successful trips to Europe, soliciting business for the company. Clarence B. Whitney, having studied at the Massachusetts Institute of Technology, and afterward passed through a similar training in the shop and in the office, resigned in March, 1896, to organize and manage the Whitney Manufacturing Company, which within a year was employing over one hundred hands. The fathers say the boys will more than fill their places. Let them try. The future must decide.

CHAPTER LXXXII.

THE MANUFACTURING INTERESTS OF HARTFORD—Continued.

POPE MANUFACTURING COMPANY.

 IN the month of May, 1878, Col. Albert A. Pope, of Boston, on an English bicycle, rode circuitously from the railway station to the office of the Weed Sewing Machine Company, in Hartford. As he passed along every one turned to watch the progress of the strange vehicle. Boys ran in pursuit, and as one after another was left behind in the chase, fresh recruits rushed forward to take their places. Shortly afterward the device excited equal surprise and curiosity within the walls of the factory. None had yet been made in this country, and, except as a toy at industrial exhibitions, few had ever been seen. But Colonel Pope had studied the possibilities of the machine till, with the



Amos Whitney

eye of faith, he saw ahead the uses that could be made, and the favor that could be won for it. The object of this visit was to arrange for the manufacture of bicycles. He soon communicated to some of the younger men of the establishment a share of his own enthusiasm. Older heads, taught by long observation that novelties, with here and there an exception, end in financial losses, argued quite naturally that the prospect did not justify the outlay required for special tools before the work could begin.

At the time of this visit the company had a corps of skillful mechanics and a high reputation for the quality of its work. But the manufacture of sewing-machines, once very profitable, had been brought to the verge of ruin by severe competition. A person capable of presenting the claims of a novelty in attractive colors could not have come at a more opportune moment.

The original sewing machine, patented by T. E. Weed, was made at Nashua, N. H., and later at St. John's, N. B. The company controlling the patents (first formed in West Winsted, Conn., February 4, 1863) moved to Hartford in July, 1865, and reorganized with Jonathan S. Niles as president, George M. Welch as secretary and treasurer, and George A. Fairfield as superintendent. In May, 1869, a part of the present property on Capitol avenue was purchased of E. M. Archibald, agent for the British government. Owing to the great popularity of the Weed machine, and to the increasing volume of orders, Sharps' Rifle Factory, adjoining, was leased in 1871 for a term of years, and purchased in 1874.

While the company continued actively to make sewing machines, the name of the inventor was retained, though every distinctive feature of the original article in the course of time gave place to improved devices. About the year 1880 rival houses began to sell on the instalment plan, and suffered severely from the viciousness of the system. After running awhile in a race where none could win, the Weed adopted the plan of dealing directly with customers. Traveling salesmen were recalled, branch offices were closed, and the benefit of such economies were given to the public in lower prices.

Fortunately for all parties, and for the city of Hartford, the visit of Colonel Pope ended in an arrangement for making the bicycles. The first lot of fifty was turned out in season for the fair and races at Framingham, Mass., September 17, 1878. Elaborate pains were taken to make the novelty the chief attraction of the hour. By the time the gates closed, thousands of people were discussing the merits of the bicycle, and not a few had decided to own one.

The inventive and mechanical talent of the factory was now devoted to the improvement of the machine. Unweariedly have the managers aimed to make each one as perfect as existing conditions would permit, and, at the same time, to advance continually in tools, materials and designs. Much of the machinery in use has been invented and made on the premises. Since the adoption of the "safety" as the ideal form, the problem has been to diminish weight without impairment of strength, and to reduce friction to the lowest point attainable. At the outset Colonel Pope established the headquarters of the selling department in Boston under his own immediate charge.

The relatively modest prosperity of the new departure in its early stages was won by the united and strenuous efforts of both departments. Demand for the novelty had to be created. It was enlarged by constantly stimulating the appetite till the wheel came at length to be recognized as a prime necessity.

By the year 1890 the business had grown to such size that Colonel Pope and his personal associates foresaw in the near future the need of a costly increase of facili-

ties. He was confronted with the alternative of buying the stock of the Weed company, or of building on other land. In either event he would be required to furnish the larger part, or the whole of the additional capital. As his relations with the shareholders had always been harmonious, he decided to give them the first opportunity by offering for all the stock an advance of fifty per cent. above the market price before the scheme became known, and of two hundred per cent. over the price that ruled when his connection with the concern was first formed. The holders accepted the terms as eminently fair. Colonel Pope and a few of his intimate associates now became owners of the property free to carry out the schemes which have since made the plant the largest of its kind in the world.

The capital of the Weed Company was \$240,000, having been cut down from \$600,000.

Succeeding Mr. Niles, Homer Blanchard was President from 1867 to August, 1876; George A. Fairfield, from August, 1876, to July, 1881; J. W. Beach, from July, 1881, to 1887; and on the death of Mr. Beach, George H. Day, the treasurer, was elected president also.

Thus the Pope Manufacturing Company, with a capital of \$1,000,000, increased in 1893 to \$2,000,000, absorbed the entire property. Colonel Albert A. Pope became president, and George H. Day vice-president and manager of the factories.

Late growth has been so rapid and comprehensive that only the main features can here be outlined. In 1890 the company added a third story, 160 by 45 feet, to the central wing for general machine work, and built two new shops, the first, 38 by 88 feet, for nickel-plating and the saddle department, and the second, 162 by 38, of two stories also, for assembling the parts and for storage; in 1891, a factory of four stories, 160 by 65, partly for machine work and partly for uses to be mentioned hereafter; in 1892, a storehouse of two floors, 106 by 33; in 1892-93, at the corner of Park and Laurel streets, a massive building of three stories, 266 by 50, containing the machinery and engines for steel tube drawing, with a boiler-house, 63 by 42, and a room for annealing, 100 by 50; and on the original grounds a new structure of four stories, $235\frac{2}{3}$ by $53\frac{2}{3}$, and having absorbed the Hartford Rubber Works company, increased the floorage from 8,600 to 57,485 square feet. In 1894, an elegant building in the style of the Italian Renaissance, of three stories above the basement, 104 by 57, of buff brick with terra cotta trimmings, to accommodate the business offices transferred in December from Boston to Hartford; and in 1895, on the original grounds, a new building, 30 by 40, of one story with a basement, specially constructed for the scientific department, containing a chemical laboratory and testing-machinery; an addition of two floors, 38 by 55, to the nickel-plating shop, making this, so far as known, the largest nickel-plating plant in the world; an addition of two floors, 28 by 46, to the polishing shop; a new building of one floor, 29 by 58, for forging machines; a new building of one floor, 23 by 25, for buffing. They also converted old stables, 25 by 40, into a tempering and brazing room, and wagon-sheds, 30 by 30, and 26 by 18, into rooms for pickling and cleaning forgings. For the rubber works the company built an office of two stories, 65 by 45; a factory of three stories, 100 by 60; a storehouse for rubber of one floor, 65 by 100; and an oil-house, 14 by 16; and near the rubber works, a new factory of one story for the tube plant.

With slight additions to the original plans the tube works now contain ninety-seven thousand, four hundred and ten square feet of floor space. The power plant consists of two batteries of two boilers each, fed by conveyers automatically carrying at a maximum rate of a ton a minute fuel from coal bunkers having a capacity of three thousand tons, to hoppers above the boilers, whence it is supplied by gravity

to movable grates, the motion of which is also automatically regulated in accordance with the demand for steam. Combustion is so complete that when fully ignited the fires are smokeless. Each battery is of five hundred nominal horse-power, with room for a third when demanded. The steam here generated supplies mainly two five hundred horse-power, triple-expansion, direct-connected, fly-wheel pumping engines. These furnish hydraulic power under a pressure of one thousand, two hundred and fifty pounds per square inch to presses for cupping steel sheets into tubing, and also for the draw benches, which draw cold the seamless steel tubings. At present three presses and fourteen draw benches are in operation, with room for more as fast as needed. All the heavy machinery for the plant, the outgrowth of years of experimenting on the part of the company, was designed and made expressly for it, and has proved eminently successful. Before the close of 1897, with a force of two hundred and twenty-five men only, a million feet of tubing will be produced per month. In addition to the above, the plant has other engines yielding five hundred horse-power. The premises are lighted by an independent electric system having a capacity of one thousand incandescent and fifty arc lamps. The tube works are under immediate charge of Harold H. Eames, late of the United States navy.

The company is successfully drawing nickel steel tubing containing five per cent. of nickel, a feat never accomplished elsewhere. This is the material used for armor plating in the latest construction of war vessels, and surpasses in strength every thing hitherto tested. The company produces high carbon steel tubing for the outside trade, but reserves the nickel-steel for its own machines.

The spacious quarters at the corner of Park and Laurel streets, vacated by the Tube Works, are now used for the development and construction of the motor carriage. Beginning with electricity, the company is also experimenting with other motive agencies, recognizing special fields for each. Abroad a great and growing demand for horseless vehicles has sprung up. It is believed that this establishment is about to furnish a model which will cause a like demand in America.

In 1896, just east of the main offices, the company put up a brick building, sixty-eight by two hundred and thirty-five feet, of three stories and basement for the shipping, the printing and advertising, and the repair departments. The front rooms forty feet deep, finished in hard woods, are used for offices through all the stories, each connected with its appropriate department in the rear. It also extended the south wing of the Hartford Cycle plant eighty-nine feet, and at the rubber works made additions which brought the total floor space up to one hundred thousand, five hundred and ninety-four square feet.

From the above minor construction has been omitted. The floor space of the entire plant in January, 1897, reaches 741,330 square feet, the equivalent of 17.01 acres. Of this 15.78 acres are devoted to manufacturing and 1.25 to office purposes. The increase in eight years is over six-fold. The number of hands employed varies with the season of the year. To be exact, in February, 1897, it reached three thousand, one hundred and forty-five.

The machines produced at these works have always been known as the Columbias. Within a decade by improvements in form and material the weight has been reduced from sixty to twenty-two pounds for standard grades and to seventeen and a half pounds for racers. Nor has this gain been won at the sacrifice of strength or durability. It certainly has not been won except through elaborate and costly experiments, for the scientific department is in a sense the central feature of the establishment. At the same time the expense of maintenance is so great that no rival in America has seen fit to equip a similar department. Here are machines for measur-

ing the force required to wear out a finished bicycle, or to bend, break or tear asunder any of its parts. The one hundred thousand pounds Emery testing machine is equally accurate in testing the tensile strength of a heavy steel bar or of fine wire. By experiments thus conducted the managers have learned with certainty what grades of steel give the best results in different parts of the bicycle. The facts are reserved for their own exclusive use.

When a new wheel is put on the vibratory machine it is subjected to the conditions that would be met on a very rough road, driven at the rate of twelve to fifteen miles an hour, with a rider weighing from one hundred and fifty to two hundred and fifty pounds. In the chemical laboratory specimens of steel are analyzed and the results tabulated. Here a pyrometer, by a spot of light moving along a graduated dial, shows the exact temperature of the annealing furnaces in distant parts of the yard. The dynamometer, devised by the engineer in charge, measures the force exerted by a rider in overcoming the isolated element of friction. By such appliances the relative merits of the work of different makers can be accurately determined. In 1895, in order to secure entire freedom from vibration and other external sources of disturbance, the scientific department was transferred to a new and very solid building designed for its special uses.

A council composed of experts, of heads of departments and of officers, meets weekly, or oftener, to determine what changes, if any, can be introduced to improve existing models. No point, however minute, escapes untouched.

At the rubber works, under the superintendence of Lewis D. Parker, are made all pneumatic tires for the Columbia, besides great quantities for other concerns. The stock of rubber undergoing manipulation often exceeds, in value, a quarter of a million of dollars.

The Hartford Cycle Company, capital \$200,000, was established in 1889, by the Pope Manufacturing Company, as a separate corporation, to make a plain but strong and durable wheel, to be sold about twenty-five per cent. below the Columbias. In 1892 they bought the strong and shapely building at the corner of Capitol avenue and Woodbine street.

Our sketch would be incomplete if mention were omitted of provision for the welfare of the employees. In 1892 a building of four stories, one hundred and sixty by sixty-five feet, was erected. The basement is fitted with wash-rooms, furnished with hot and cold water, and with a thousand lockers, or clothes-presses, for the separate use of the men. The floor above is given up to reading, lunch and smoking-rooms, or in other words is set apart for the self-improvement, convenience and comfort of the workmen. At noon coffee of the best quality and a plain lunch are served at cost, or less. Already the nucleus of a library has been formed, which, through the liberality, not only of the company, but of friends, promises to expand into an institution which will fitly typify the spirit of mutual helpfulness and goodwill which should characterize the relations of employer and employee. The other departments are also provided with lockers, wash-bowls, etc.

Twenty branch houses and stock companies, owned and controlled by the Pope Manufacturing Company, are located in Boston, New York, Chicago, Buffalo, Providence, San Francisco, Philadelphia, Brooklyn, Washington, Baltimore, Rochester, Pittsburg, Detroit, St. Louis, New Orleans, Denver and elsewhere, nearly all having schools for instruction in riding. In addition to the above there are four thousand exclusive agencies planted in every important city and distributing-point on the planet.

It has been the steady policy of the company to secure the best talent available

to conduct the different departments of the business. Skill and fidelity are well rewarded. Here may be found many recent graduates from colleges and from schools of technology. In various ways their influence is felt, notably in turning the thoughts of educated young men from professional to industrial fields.

Although a native and a resident of Boston, Col. Albert A. Pope has claims on the lasting gratitude of Hartford through the magnitude of his local interests and benefactions. A part of the story has been told in connection with the almost magical growth of the plant that bears his name. Born May 20, 1843, at the age of nine years the lad was forced, by business reverses of the family, to begin the battle of life unaided. Through boyhood he studied, traded and toiled by turns, learning all the while invaluable lessons of thrift, economy, contrivance, far-sightedness and persistence that largely form the winning characters of the world. At the age of nineteen he joined the Thirty-fifth Massachusetts infantry, and was elected second lieutenant. He fought at South Mountain, Antietam, Sulphur Springs, Fredericksburg, Vicksburg, Jackson, Knoxville, Petersburg and Poplar Springs Church, escaping countless dangers with one slight wound. When Washington was threatened, he extemporized from the convalescent camp at Alexandria, in twelve hours, a regiment of artillery, and hurried to the defense of the capital, taking command of Fort Slocum and Fort Stevens, with forty-seven pieces of artillery. He commanded Fort Hell at Petersburg, and, in the final attack, led his regiment into the city. He rose successively, through all grades, to the rank of lieutenant-colonel.

On taking up the bicycle, Colonel Pope labored hard, not only to popularize the novelty, but also to secure legal recognition of the rights of wheelmen. He has been, too, a champion of highway improvement. He has given to Hartford, from time to time, nearly one hundred acres for public parks.

As Col. Pope is still in the bloom of vigorous manhood his career promises to be one of the most notable among the chiefs of industry.

George Herbert Day, vice-president and manager of the factories, was born in Brooklyn, Conn., April 3, 1851, a descendant of the fifth generation from Gen. Israel Putnam and in another line from Godfrey Malbone, an eminent merchant and citizen of Newport, R. I., whose son Godfrey Malbone, Jr., bought an estate of three thousand acres in the Brooklyn society of Pomfret, and during the Revolution was unbending in loyalty to the crown. After a short stay at Hobart college, terminated by trouble with his sight, Mr. Day in 1870 came to Hartford, taking a clerkship in the Charter Oak Life Insurance company with which he remained seven years. He entered the Weed Sewing Machine Company, Oct. 1, 1877. The story of the troubles, the absorption and the subsequent success of the enterprise has been told.

The value of Mr. Day was quickly recognized and his services rewarded by rapid promotions. March 17, 1879, he was made secretary; February 1, 1883, secretary and assistant treasurer; April 17, 1884, secretary and treasurer; February 5, 1885, treasurer and general manager; and March 25, 1887, president and treasurer. After the purchase of the plant by Col. Pope in 1890, he remained in charge of the manufacturing department as vice-president.

To provide high-grade tenements at low rentals Mr. Day in 1889 persuaded the directors to open Columbia street on vacant property of the company near the works. At a cost of about \$70,000 twenty-four houses were built in block, each containing nine rooms, arranged for a single family and so equipped with modern conveniences as to meet the most exacting demands. On the sale to Col. Pope this interest was detached and separately incorporated. Twelve houses with the improvements suggested by experience have since been added on Park Terrace. The investment has attracted a desirable colony and proved remunerative.

For the Columbian Exposition of 1893 no appropriation was made in advance by the state, owing to the dead-lock in the legislature. To meet the crisis \$50,000 was raised by subscription. Gov. Bulkeley appointed Mr. Day a member of the board of managers. He was made treasurer of the above fund and of the further sum afterwards added by the legislature.

As a member of the Park Commission Mr. Day has taken an active part in providing the elaborate system for the city, made possible by the munificent gifts of Henry Kneass, Charles M. Wood and Col. Pope. As director he is connected with the management of many local institutions. Mr. Day is richly endowed with the qualities which make one both trusted and beloved.

Col. George Pope, treasurer, was born in Boston January 9, 1844. In 1862 he enlisted as a private in the Forty-fourth Massachusetts, in 1863 was commissioned a captain in the Forty-seventh Massachusetts, and in 1865, at the age of twenty-one, was promoted and given the rank of lieutenant colonel. Besides skirmishes he shared in thirteen battles, including Goldsboro, Fort Wagner, Olustee, the siege of Charleston, etc., coming away with a single wound which, however, disabled him for five months.

For the next twenty-five years he was in the lumber business, mostly at Montreal, Canada. He came to Hartford in 1890 to take the presidency of the Hartford City Company, which he held till 1895, when both this and the Pope Company were brought under one group of officers. He was elected treasurer of the Pope Manufacturing Company in December, 1894. Entirely without his knowledge, he was placed at the head of the Republican electoral ticket of Connecticut in 1896.

Edwin P. Day, superintendent, was born in Brooklyn, Conn., February 2, 1860. After his graduation from the Killingly High School, he moved to Hartford, where he entered the Ward Sewing Machine Company, of which he was made secretary in 1880. In 1883 he was elected superintendent of the Pope Manufacturing Company. He has, accordingly to the main business of his life, served the public in various other positions. He is now commissary-general of Connecticut.

THE BILLINGS & SPENCER CO.—The history of this company gives the story of the creation of a new and valuable industry. Drop-forgings were probably introduced into the United States by Samuel Colt, and, to a limited extent, were soon afterwards made use of at the armories in Springfield, Mass.; but the devices were crude, the work imperfect, and the limits of practical application narrow. For a long time the latent possibilities in the system waited for the right man to develop them. It remained for Charles E. Billings, organizer and president of this company, by numerous improvements and inventions, to raise it from a lowly position, as an unimportant adjunct of the machine shop, to its present dignity.

A full biography of Mr. Billings would afford material for a history of the evolution of this new branch of industry. He was born at Weathersfield, Vt., December 6, 1835. His parents soon after moved to Windsor, in the same state, where he resided until his twenty-first year. In 1852 he was apprenticed for three years to the Robbins & Lawrence Company, gun makers and machinists at Windsor. By the terms of the indenture, Mrs. Clarisa Billings, his mother, agreed to provide for her son, at her own expense, board, lodging, clothing, etc., and the firm agreed to instruct him in the art and trade of a machinist, and to pay him for his services fifty, fifty-five and sixty cents per day for the first, second and third years, respectively. For the same concern he worked one year as journeyman.

In June, 1855, Mr. Billings began to work as die-sinker in the forging department of Colt's Armory. The drop-hammer in use, the invention of Elisha K. Root, the superintendent, was quite complicated and expensive to keep in repair. Having



C. E. Pillsbury

worked six years at Colt's Armory, Mr. Billings was called, in 1862, to the gun factories of E. Remington & Sons, where, in the teeth of doubt and mild opposition, he built up a plant for drop forgings, which increased the efficiency of labor forty fold in the production of several parts of their pistol. Here he devised a new method of forcing the metal into the frame, which saved the company \$50,000 on their contracts. In 1865 he returned to Hartford, acting for the next three years as superintendent of the manufacturing department at Weed's Sewing Machine Company. Here he introduced drop-hammers for forging several parts of the machine, notably the shuttles, which before had been made in several pieces, brazed together. In 1867 Mr. Billings patented his invention for forging them from a single piece of bar-steel, running four pairs of dies for the operation. This process reduced the cost of shuttles one-half, and has been universally adopted. His present company has made over four millions of them.

After a short absence spent at Amherst, Mass., Mr. Billings again settled in Hartford in 1869, and organized the Roper Sporting Arms Company, which at the outset experienced severe reverses in the manufacture of the Roper Sporting gun. He then formed the Billings & Spencer Company, which took up drop forgings as a specialty in 1870, and soon advanced to a commanding position.

By this method bars of iron, steel, or copper can be transformed into pieces of required shape and size, with rapidity and precision. The dies are made in the shop from blocks of the best bar-steel, ranging from three and one-half to fourteen inches square. In these are cut the form of the article to be forged, generally one-half of the thickness in the lower, and the other half in the upper die, and both are hardened to the proper temper. One is then keyed fast to the base or anvil, and its counterpart to the hammer of the drop. Where the form to be produced is complicated, red-hot bars are submitted to blows of the hammers in a series of dies till the exact figure desired is reached. Guided by the uprights of powerful frames, hammers, weighing from four hundred to two thousand pounds, fall from one to six feet. A few rapid blows complete this part of the process. The forgings are then passed on to other rooms in the shop to be finished, polished, and in many cases to be assembled into tools. At the present time the company has sixty drop-hammers.

The catalogue of the company embraces a large variety of standard articles, made of sizes to suit the trade and carried in stock. It includes screw-plates, dies, reamers, wrenches, ratchet-drills, lathe-dogs, clamps, lathe tools, combination pliers admitting a wide range of adjustment, vises, surface gauges, sewing machine shuttles, thumb-screws, pistol frames and barrels, breech-loading shot guns, solid steel eye-bolts, carbon tongs, magazine screw-drivers, spinning rings, and similar articles, many being the invention of Mr. Billings himself. His adjustable pocket wrench, graduated to one-thirty-second of an inch, is specially suited to the bicycle, and one million have been sold. Manufacturers of electrical apparatus, sewing machines, gas fittings, guns, pistols, pumps, and other standard goods, have many pieces which enter into their product forged here.

An all-pervasive force in the development of the enterprise has been the inventive talent of Mr. Billings. A single instance will illustrate. While visiting the Edison Electric Works, in 1886, he noticed the method of making commutator-bars. These are pieces of copper set at an angle to each other. The horizontal blades, thin and wedge-shaped, separated from each other by mica, asbestos, or some other non-conducting substance, are placed side by side around the shaft of the dynamo, and bound firmly together. Electricity is generated by the friction of metallic brushes against the edges of the bars revolving at high speed. The

current passes through the upright arm and thence into coils of wire for storage and transmission.

The bars were made in two pieces, united by pins and solder. In the conversation which arose the electrician of the works expressed the opinion that they could not be produced otherwise. On returning home, Mr. Billings cut dies, and in four weeks sent to the Edison Company an invoice of bars forged in a single piece from pure copper, and having a homogeneous molecular structure throughout. The fibres also run parallel with the generated currents of electricity, and the material is of the greatest possible density. By this invention the cost of bars was greatly diminished, and their efficiency increased. They have come into general use.

The company has made frequent enlargements in the endeavor to keep up with the demand for its goods. In 1889 they built a new forge room forty by ninety feet, and the next year continued it to Lawrence street, with an ell, forty feet square, for a repair shop. At the same time the capacity of the steam plant was doubled. In the summer of 1892 they broke ground for a new building, which extends two hundred and twenty-eight feet on Lawrence and one hundred and seventy on Russ street, with a breadth of forty feet. Two stories of brick rest on a brown-stone basement. At the corner, where the offices are located, the structure rises to three stories, surmounted by a tower. Everywhere, in the new construction, careful provision has been made for the comfort and health of the occupants. The forge rooms are very high and ventilated under the roof. The offices are high, spacious, and finished in hard woods. Besides these nearly every season brings less conspicuous additions. At the close of 1896 the floor space exceeded eighty-one thousand square feet.

The appliances in use have been so modified and improved by the patented inventions of Mr. Billings that other concerns requiring drop-hammers as a part of their outfit, come hither for the equipment. They make and keep on hand a full line. These are so strong that, notwithstanding severe usage, they often go for two and three years without repairs. As the result of long experience, with all the sizes, the bases are now made to weigh fifteen times as much as the hammers which fall upon them.

At the exhibition given by cycle manufacturers in Madison Square Garden early in 1895, the company set up a similitude of the human skeleton, seven and a half feet tall, made up wholly of forgings picked from its stock on hand. About seven hundred and fifty pieces were used. It was planned and constructed in four days by H. E. Billings, second son of the president. At night the glare of the electric lights, concealed in the eye sockets, added to the hideous fascination of the image. After drawing large crowds it now stands in the show-room of the factory.

The rapid growth of electric traction, and the demand for safe and durable equipment, led the company to enter this field also. They are now furnishing a full line of drop-forged trolley material. The parts subjected to strain or wear have a tensile strength that can be reached in no other way. They also supply colophite, the invention of S. J. Hoggson, an insulating compound, unaffected by the atmosphere, impervious to influences of weather and climate, a natural preservative and showing a high resistance.

The works are located between Lawrence and Broad streets. The dies are stored in fire-proof brick vaults, warmed sufficiently by steam to prevent rust, and separated by a safe distance from the other buildings. As an insurance of \$80,000 was formerly carried on the dies alone, the wisdom of the step is manifest. The manufactured stock is also stored in another fire-proof vault similarly kept dry and warm. Mr. Billings is fortunate in having associated with him two sons, whose

early work gives evidence that they have inherited the talents of their father. Mr. Billings is not only a man of much local prominence, but is also well known throughout the country. October 2, 1895, he was elected president of the American Society of Mechanical Engineers to complete the unexpired term of E. F. C. Davis, who was accidentally killed while riding on horseback in Central Park, New York, the previous August. Mr. Billings was senior vice-president. The society numbers over sixteen hundred members, including many of the best mechanical engineers in America and Europe.

The capital of the company, organized under a liberal charter, is \$200,000, with the privilege of increasing to \$300,000. Charles E. Billings, president and general manager; L. H. Holt, treasurer; E. H. Stocker, secretary; F. C. Billings, superintendent; H. E. Billings, manager railway department.

HARTFORD MACHINE SCREW COMPANY.—The Hartford Machine Screw Company was organized July 24, 1876, on a paid-up capital of \$40,000, with the privilege of increase to \$200,000. For a number of years the business had been prosecuted by a partnership, and had failed to be remunerative. While its affairs languished in a condition of uncertainty respecting the ultimate outcome, George A. Fairfield, then president of the Weed Sewing Machine Company, at the solicitation of friends, and under the assurance of adequate pecuniary support, consented to take charge of the enterprise. A charter was at once obtained from the state, and a corporation formed. Mr. Fairfield was elected president, and Daniel Morrell, secretary and treasurer. For some time Mr. Fairfield continued at the head of the Weed, giving incidental attention to the screw business, which was carried on in a small room under the same roof. As the possibilities of the system became more apparent he resigned the presidency of the Weed, and has since devoted his time and energies to the exclusive service of the Screw Company, ably seconded by Mr. Morrell, a man of wide experience and ample means, and also, for several years after the reorganization, by Christopher M. Spencer, as superintendent and mechanical engineer.

The original patents were taken out by Mr. Spencer, more widely known, perhaps, as the inventor of the rifle that bears his name. Since his retirement many valuable improvements and inventions have been made by the officers and employees of the establishment, which have so added to the efficiency of the process and to the perfection of the work, that the company and its licensees now largely control the production by automatic devices of machine screws and kindred work.

The sizes range from the heaviest engine and mill-work to the smallest parts entering into the construction of a watch—screws so minute that to the unaided eye they resemble grains of dust.

Many of the largest manufacturers in the United States and Europe have adopted the system, paying a compensation and subject to restrictions satisfactory to the parent company. Its members control and run for western trade a large branch at Elyria, Ohio.

Up to the time of Mr. Spencer's first invention, machine screws were made either by the old and tedious method of turning and threading on an engine-lathe, or by the use of a monitor-head machine, run by hand, and each requiring a separate operative. By the process as elaborated in Hartford, an unskilled hand can successfully attend from five to fifteen machines, according to the size and character of the work. On large screws, the amount accomplished by an automatic and monitor differ but little, the greater productiveness of the former depending on the larger number a single workman can run. On small screws, however, and other minute pieces, the superior efficiency of the automatic is hardly more marked in the quantity than in the quality of its results.

The coarser and cheaper grades of goods, such as enter into the construction of buildings and ordinary hardware, are not made here, the efforts of the company being restricted to the higher qualities of screws, pins and other turned work, used in the manufacture of locomotives, engines, machine tools, electrical appliances, printing-presses, sewing and knitting-machines, guns and pistols, gas-fixtures, clocks and watches, optical and surgical instruments, jewelry, and for a wide variety of similar purposes. Almost as diverse as the ends to which they are applied are the materials employed, including iron, steel, zinc, brass, copper, German silver, sterling silver and gold.

The factory built in 1880 is located at No. 476 Capitol avenue. In 1889-90 two additions of two stories each were built, the first, 260 by 45, and the second, 250 by 32 feet. For accessibility, light, ventilation, convenience and safety these structures are models. Aside from dividends, net earnings have gone largely into the plant and improvements, till the property is now understood to be very valuable. Of the capital stock of \$100,000 not a share ever appears on the market and quotations of price are unknown. Officers are: George A. Fairfield, president and treasurer; Daniel Morrell, secretary; J. K. Lanman, assistant treasurer, and J. W. Morrell, assistant secretary.

George A. Fairfield was born in Lansingburgh, N. Y., March 20, 1834. At the age of seventeen he entered as an apprentice the shop of Lucius and Ira Dimmock, makers of silk machinery, at Northampton, Mass. He was called from place to place till in 1857 he accepted a position at Colt's Armory, where he became a contractor, holding at the height of the war one of the largest contracts in the establishment. On the evening of January 19, 1858, he opened the first purely mechanical drawing school ever taught in Hartford. In a sense it was a turning point in the industrial march of the city, for several subsequent leaders here received their training in exactness and precision. At the close of the war he bought the slightly place on the avenue which now bears his name.

When the Weed Sewing-Machine Company moved to the city in 1865 he accepted the superintendency. While here he invented several devices which proved very valuable, assigning the patents to the company. At high tide the annual sales reached \$1,200,000. He was president from August, 1876, to July, 1881.

In 1873 he represented this interest at the International Exposition held in Vienna, and was selected by the United States Commission to write an illustrated report on the sewing-machine industry, embracing both Europe and America. It was published by the State Department at Washington in 1875. In recognition of his work Mr. Fairfield received a medal from the Emperor of Austria. The story of the upbuilding of the screw company, of which he is father and president, has been told above.

When the citizens of Hartford united in 1891 to erect an industrial building at a cost of \$100,000, Mr. Fairfield, as president, gave to the public gratuitously time and services that money could not have bought.

THE PRATT & CADY CO.—This establishment, which has grown rapidly into strength and prominence, began July 1, 1878, as The Steam Boiler Appliance Company, taking the patents of Francis A. and Rufus N. Pratt, and making return steam-traps and swinging check-valves, both of which have since come into extensive use in the United States and Great Britain. For four years their office was with The Pratt & Whitney Company, which manufactured the traps for them, the valves being made by contract in Bridgeport.

Having, in 1882, formed an incorporation under the present name, and increased

the capital from \$50,000 to \$100,000, the company began the manufacture of their own goods in the Gillett Building on Union Place, adding another line known as the straightway swinging stop-valve. Business grew so rapidly that, finding more commodious quarters necessary, they bought a lot at the corner of Capitol avenue and Sigourney street, and erected their first building in 1883, having it ready for occupancy in September.

While visiting certain mills in Lancashire, England, in 1881, R. N. Pratt observed the uses of asbestos as applied to steam valves. The knowledge casually gained, and not impressive at the moment, assumed more importance after his return home, for, on reflection, he reached a belief that the material, properly treated, could be made highly valuable as an adjunct in the production of their special lines. Correspondence with the owners in England resulted in the purchase of the exclusive right to use the patents in the United States. The expectations of Mr. Pratt have been more than realized. The merits of asbestos as here applied so broadened the demand for the goods that, in the spring of 1886, the capacity of the plant was greatly enlarged, and in 1889 the size of the works was doubled.

In 1890, the company built a new brick foundry, two hundred and thirty-five by seventy feet, on Capitol avenue, adjoining the works, with a melting capacity of over forty tons per day. The wood used in construction is confined to the doors and lower window frames. Forty-five feet above the ground are the ventilators, adjustable by wire cords. An annex of two stories, forty by two hundred and twenty feet, was built at the same time for pattern making and pattern storage in the upper floor, and below for casting ware-room and storage. In 1893, they built a new brass foundry, besides raising the main buildings from one to two stories. In 1895, an addition was made to the iron foundry on the west end, sixty by one hundred and fifteen feet. At the end of the year the entire floorage space was about ninety thousand square feet.

Meanwhile, the inventive talent in the company has not been idle. They have taken out several patents for the application of the material to valves of all kinds, the asbestos renewable disk now being the prominent feature in brass and iron straightway, globe and angle valves. With the increase in the varieties offered to the public, the calls for all kinds have multiplied.

The application of asbestos to the uses here made of it is entirely new in this country, and has been carried very much further than in England.

The goods of the company are all sold to Fairbanks & Company, of New York, Fairbanks, Brown & Company, of Boston, and to their branch houses, while each in its own field distributes them throughout the country. No limit can be assigned to the future development of the business. If the strength of the adult corresponds to the robustness of the infant, this establishment will in due time find a place in the front rank of American manufactories.

The capital stock, increased from time to time to provide for enlarged facilities, is now \$400,000. The officers are, Ernest Cady, president and treasurer; F. F. Street, secretary *pro tem*.

Mr. Cady was born in Stafford, Conn., September 6, 1842. In the late war he enlisted in the United States Navy and was assigned to the gunboat, "Westfield," W. R. Renshaw, commander. This craft was attached to the Gulf Squadron, and for several months in 1862 was engaged in blockading Galveston, Texas. On the morning of January 1, 1863, the "Harriet Lane" was captured by the Confederate fleet which had come out from Houston in the night, and the surrender of the "Westfield" was demanded. The ship was then aground. Commander Renshaw

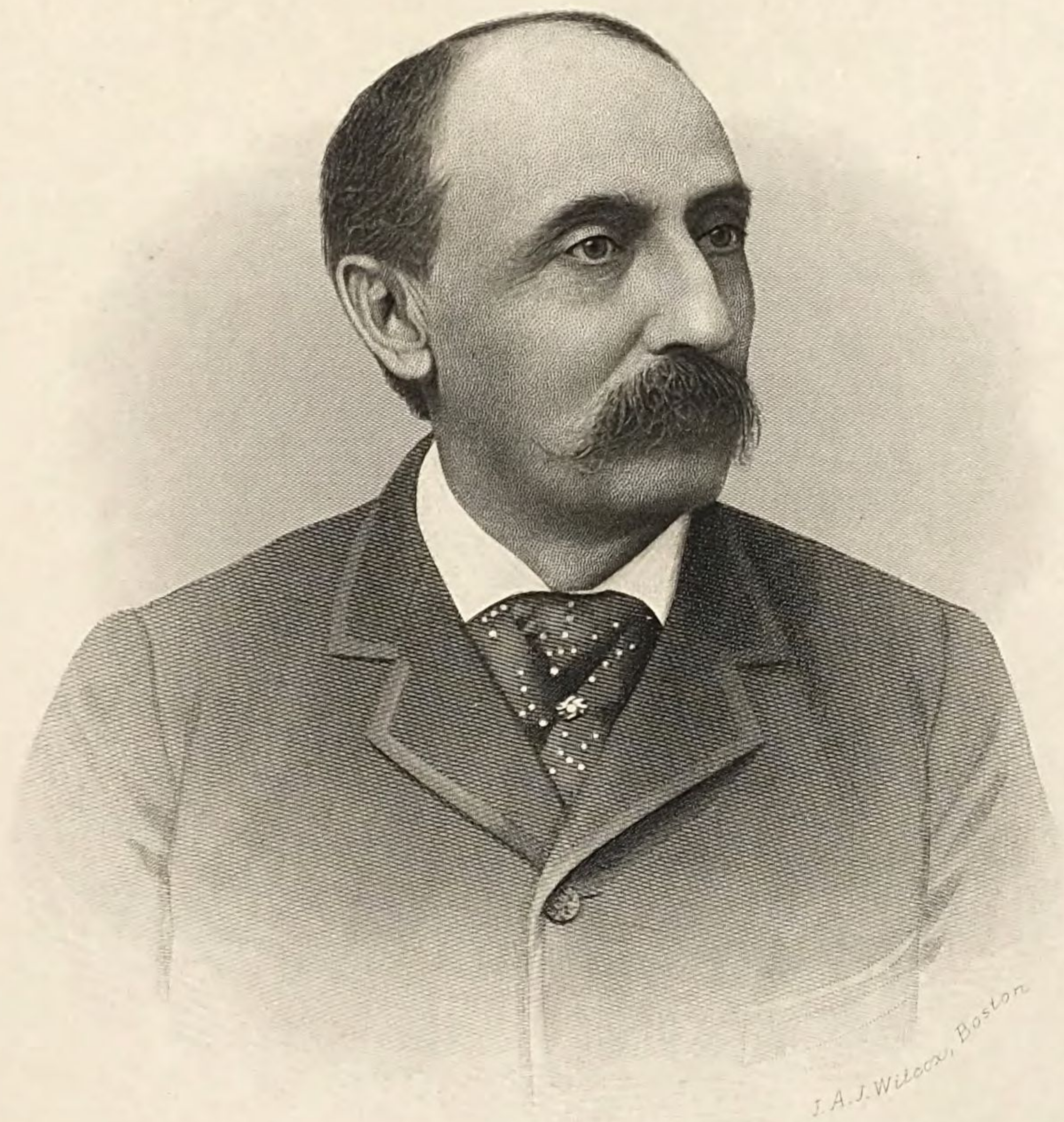
the vessel was blown her up. The train exploded prematurely and killed fourteen officers standing on the gangway. Young Cady had just left and was the last person to escape. After the destruction of the "Westfield" he was transferred to the sloop-of-war "Brooklyn." While in the service he took part in several engagements. In July the vessel was ordered to report at the Brooklyn navy yard and reached there on the last day of August, 1863. Here, with others, he was paid off, and used the money to continue his education. Later Mr. Cady was in trade five years in Stamford and five years in Norwich, and in both places successful. In 1877 he moved to Hartford. Since 1878 his energies have been mainly devoted to the company, the growth of which has been sketched above.

In the fall of 1892 Mr. Cady was nominated by the Democrats for the lieutenant-governorship and was elected by a large majority. Although till then without experience as a presiding officer, he presided over the senate with such fairness as to win hearty commendations from all. In 1894 the same party ran him for governor, but all over the country it was a bad year for Democrats, so that defeat was inevitable. However, he can solace himself with the reflection that his position in a great and successful manufacturing enterprise is not less honorable and far more profitable than anything politics has to offer.

THE PLIMPTON MANUFACTURING CO.—In 1865, Linus B. Plimpton, a native of Stockbridge, Mass., began at Hartford the manufacture of envelopes. The business prospered and was gradually enlarged to include paper, papeteries and printing. In 1873 the Plimpton Manufacturing Company was organized, with L. B. Plimpton as president and general manager. In 1886 they built a factory for their own exclusive use on Pearl street. It is constructed of brick, with stone trimmings, and has four stories above the basement, each containing seventeen thousand square feet. It is lighted by electricity, furnished with automatic fire extinguishers, and thoroughly provided with modern appliances for the convenient and economical dispatch of business. The works have a capacity for turning out three millions of envelopes per day, and besides are fully equipped for job printing and bookbinding. Paper packing boxes are made on the premises, and much of the special machinery used in making envelopes.

A statement of naked facts can convey no adequate conception of the perfection of the labor-saving contrivances in use, or of the ingenuity and toil expended in their evolution from the crude germs of thirty years ago. From paper made of such material as to avoid waste, envelopes are cut, hundreds at a time, with each fall of the hand. The sheets, placed in bulk upon the table of the machine, are picked up one by one by fingers that never tire, gummed, folded, impressed with the printed request to the writer (and at the government works with the postage stamp also), and packed in packages of twenty-five each, and delivered at the outlet ready for boxing. With intelligence seemingly human, and with more than human exactness and swiftness, the marvellous combinations of wood and iron fulfill their daily round, never making a miscount, and rarely, even for an instant, failing to turn out perfect work. Most of the improvements, which render the present machines so precise and effective, have been wrought out under the suggestions and directions of the officers of the company, and are protected by patents.

In 1874 the company put in a bid for making stamped envelopes for the government, and obtained the prize. With them in the contract was joined the Morgan Envelope Company, of Springfield, Mass., and the association has remained unbroken ever since. At each successive letting for twenty years the contract continued to fall to the same parties as the lowest bidders. During the first eight years in Hartford,



M. S. Chapman

so radical were the improvements in machinery that a largely increased demand for stamped envelopes was actually accompanied by a diminution of help. The limit of mechanical economies seemed then to be nearly reached, and the force of employees has since slowly increased. In 1894 the postmaster-general awarded the contract to other parties, who soon learned that it was much easier to put in a low bid than to fit up to make the goods. Hence an arrangement was made for continuing the work at the old place under the old management.

Since the transfer of the manufacture to Hartford, the annual product of the government stamped envelope has risen from one hundred and fifty to over six hundred millions. From the beginning Maro S. Chapman has had immediate supervision of the business, which is carried on in a building by itself, while the post-office department has an agent of its own under the same roof to look after its interests, and to superintend the shipment of goods to post-offices throughout the country on orders from Washington.

Mr. Chapman, who organized and has since managed the stamped-envelope works, was born at East Haddam, Conn., February 13, 1839. He entered the service early in the late war, enlisting in the Twelfth Connecticut regiment. Since 1864 he has been engaged primarily in the manufacture of envelopes. As is generally the case with men of marked executive ability, his counsel and aid have been sought for many other enterprises. He is president of the Hartford Manilla Company, which has a flourishing paper mill at Burnside. He originated and is president of the Hartford, Manchester and Rockville Tramway Company. With his own resources he built, equipped and turned over the road to the stockholders in complete running order. It is regarded by those who are qualified to express an opinion as in every respect a model. During the year 1896, under the same conditions, he extended the line six miles to Talcottville, and built a complete power plant to furnish electricity both for the system and for lighting the town of Manchester. He was elected member of the House of Representatives in 1881, and of the Senate in 1884. A clear and forcible speaker, he has the gift of impressing his own convictions upon the minds of others.

Capital of the Plimpton Manufacturing Company, \$300,000. Officers: L. B. Plimpton, president; M. S. Chapman, vice-president; Frederick Plimpton, treasurer; J. M. Plimpton, secretary.

THE DWIGHT SLATE MACHINE COMPANY.—Dwight Slate, of Hartford, is a pronounced specimen of the type of high-grade inventors that in mechanics have won renown for New England. Born in Gill, Franklin county, Mass., May 29, 1816, at the age of seventeen he entered as an apprentice the machine shop of Eli Horton, at Stafford, Conn. At the end of two years he was made foreman and soon after a partner. While an apprentice he had won such a reputation for ingenuity that a concern engaged in the manufacture of rifles and pistols, asked him to get up a machine for rifling "gain twist." He tried and succeeded. Later, the device found its way to the gun factory of Robbins & Lawrence, in Vermont, and remained in use till they went out of business. While in Stafford, Mr. Slate got up for Charles W. Rockwell, of Norwich, a "capper" for winding a continuous sheet of wool into a large roll, to be fed thence into the carding machine. Mr. Rockwell was so pleased with its operation that on settling the bill he presented him with fifty dollars.

In 1845 Mr. Slate formed a partnership with F. M. Brown. They located at Windsor Locks, Conn., where they built a shop of three stories above the basement, forty by eighty feet. Most of their orders came from large corporations, for which Parks, Wight & Co., of Boston, acted as financial agents. They also equipped in part several cotton and woollen mills in Connecticut. When Colonel Colt received

the firm, on a sub-contract, made the revolver with special tools invented by Mr. Slate for the purpose. The revolver of this type which in the Mexican war was equipped with this weapon. The revolver of this type was valuable to Colonel Colt.

Mr. Slate was appointed to take the superintendency of the Augusta Machine Works of Augusta, Me., which was about to build a second mill. After some time he was dismissed, and with funds furnished for the purpose bought a small mill in the same place, but found great difficulty in hiring good workmen. By this feature he tried to secure a company, composed partly of the same machinery and partly of railway cars. The two concerns merged their interests, but the plan was not successful. Cars were built for many southern mills, which, however, were poor to pay except in bonds. The position was not profitable for Mr. Slate. He resigned, and for two or three years was engaged in the lumber business on a branch of the Altamaha in South Georgia. Having sustained heavy losses by a flood, he returned north.

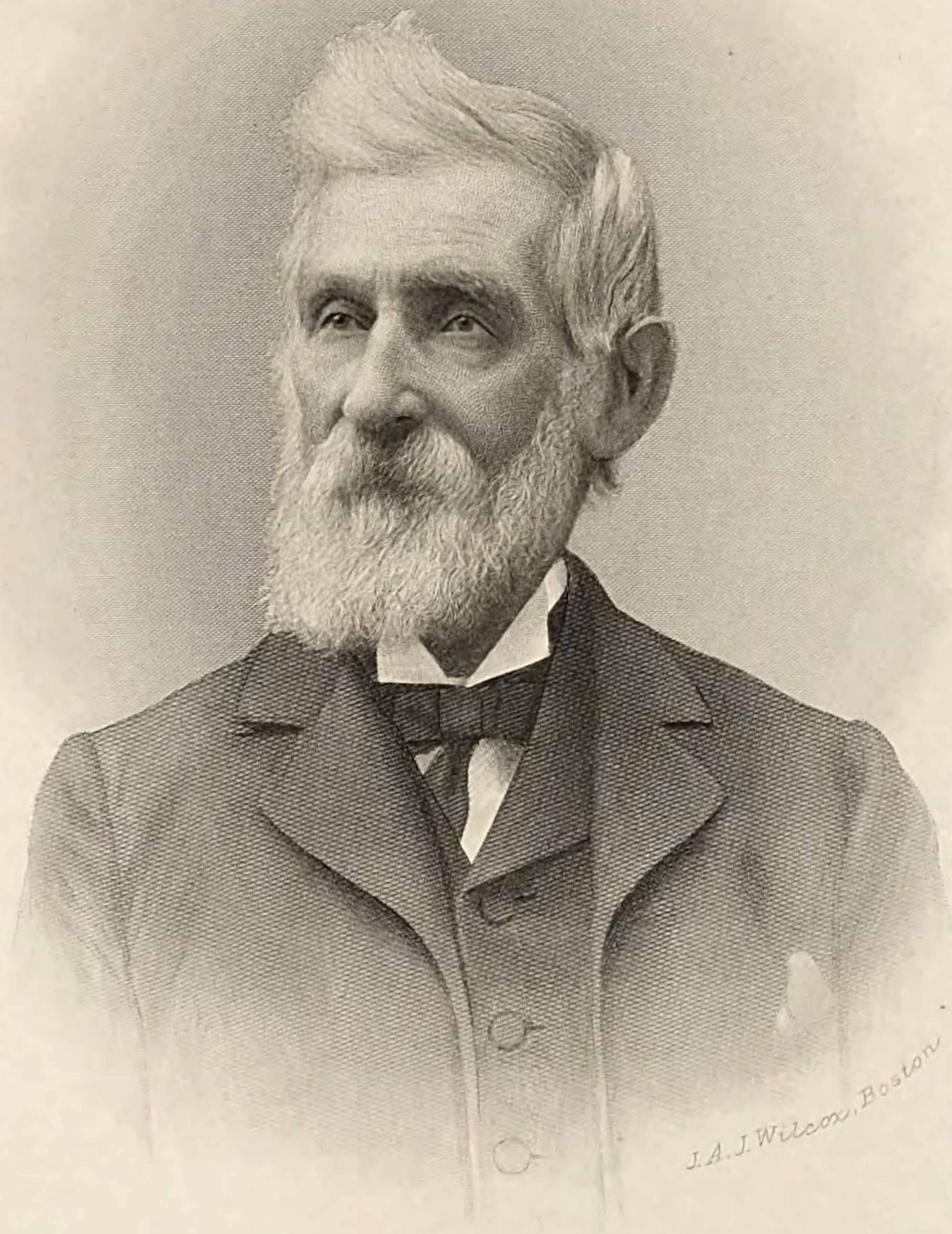
He was then engaged to contract one hundred and twenty thousand guns at Colt's armory. The guns of one per cent. were spoiled in the process, and he was not paid. The same inspector condemned five per cent. of another lot, also of the Springfield Armory. While there he designed the "paper barrel" and sold the patent to the Pratt & Whitney Company for \$50,000. The barrel proved very profitable to the purchasers. After the war he was engaged by the Pratt & Whitney Company as designer and soon got up a new style of rifle barrel, of which large numbers were sold abroad. Later he engaged for a short time at the "Steamman Regulator and Alarm Co.," and while there invented the "Steamman Heater," which proved a great financial success, but out of which he made nothing, as he waived his claims from regard for friends, who had lost their previous investments in the concern.

For the "Woodland Stave Company" Mr. Slate designed a machine for sawing staves. The saw had a diameter of nineteen feet and was curved widthwise to follow the curvature of the barrel at the bilge. It operated on planks of wood of the barrel and about four inches thick, cutting one hundred and twenty staves per hour. The factory was located in the oak timber regions of Michigan. The machine worked to perfection, but the barrels proved commercially valueless, as the brines or liquors percolated through the pores of the wood which were not seasonally.

For the "American Paper Barrel Company" he devised a machine for making paper pulp by pressure. The product proved strong and durable, but it was found that a suitable plant for making the article would cost not less than two hundred dollars. This preliminary outlay presents an almost insuperable barrier to the success of the scheme.

In 1876 Mr. Slate rented a shop in the "Woods building," which he still occupies. He makes a line of tools suitable for the production of light machinery, employing about sixty men. These tools not only find a ready sale in this country, but, through an agency in London, are distributed over Europe.

An idealist in mechanics, Mr. Slate has always been far more concerned to attain excellence than to secure large returns, though not unmindful of the importance of the financial side of an enterprise. He has refused contracts, though backed by good security and made tempting by proffered profits, simply because he knew in advance signs submitted must turn out mechanical failures. He will not take the deluded enthusiast.



Dwight Plate

CHAPTER LXXXIII.

THE MANUFACTURING INTERESTS OF HARTFORD—Continued.

HARTFORD WOVEN WIRE MATTRESS COMPANY.



FEW Hartford gentlemen, in viewing the attractions of a local fair, were so impressed with the merits of a woven wire mattress on exhibition, that, not long afterwards, a party of four bought from one Wegman the patent on the weaving. Radical improvements were needed to make the article commercially valuable. J. N. Farnham, whose services were secured for the purpose, invented a light and portable frame, which reduced the weight of the mattress from two hundred to sixty-five pounds. A company, organized in 1869, began the next year to make the goods in a small room in the building of the Case, Lockwood & Brainard Company, on Pearl street. In 1871 the late George C. Perkins bought a controlling interest, and soon established the business on a permanent and profitable basis. Mr. Perkins died in September, 1875. W. J. Myers was elected treasurer in March, 1876, and retired in March, 1884. Henry Roberts became secretary in March, 1880, and president in January, 1884.

In 1885-86 the company built, for its own use, a factory three hundred by sixty feet, at the corner of Laurel street and Capitol avenue. In 1892-93 a second story was added to the entire structure, and a brick foundry, eighty-two by forty-two feet, of one and a half stories, was also erected.

Besides woven wire mattresses, the company have introduced the use of woven wire seats for railway and street cars. These are usually covered with plush or rattan, and have the merits of durability, cleanliness and comfort. To plain iron bedsteads they have added new patterns of ornamental iron and brass. They also make wire fencings and railings. The company exports its goods to Europe, Australia, South Africa, Mexico and the West Indies.

The machinery for weaving the wire is simple, ingenious, and in operation never fails to interest the spectator. The wire itself is drawn from the best imported steel rods, specially made for the purpose. Of this each mattress contains about one mile in length, and the tensile strain on each square foot is about fifteen hundred pounds. The factory is thoroughly equipped, having, among other conveniences, a side-track by which car-load lots are received and shipped at the door. The company owns an abundance of land adjoining, for the further extension of the plant. Capital, \$80,000. Officers: Henry Roberts, president and treasurer; J. E. Godbee, secretary.

ASA SINCLAIR COOK, born at Sandwich, N. H., January 10, 1823, at the age of eighteen left home to seek his fortune where wider spheres opened greater opportunities. A slender purse was more than off-set by health and courage. He had a fair education, and was proficient in mathematics. Following a natural bent, he learned the trade of a machinist. Having spent five years at Gloucester Point, N. J., he came to Hartford in 1850, and, with the exception of a few months, given in 1858 to the cause of freedom in "bloody Kansas," remained for fifteen years with Colt's Patent Fire-Arms Company as workman, foreman and contractor. In 1865 he was drawn to Petrolia, Canada West, by the oil excitement. After three rather fruitless years, he wisely returned to Hartford, where his gifts were brought into immediate use in building machinery for making wood screws for the National Screw

Company of this city. The American Screw Company, of Providence, had long held a practical monopoly in the United States, but before the expiration of their main patent their young firm in Scotland reached equally good results by dissimilar devices. The new company, with a factory on Sheldon street, and in three or four years attained a degree of success which caused the stock to command a premium of 140 per cent. However, in the combinations which followed, the owners sold to their Providence competitors in 1874, and the plant was removed elsewhere.

For five years Russell & Brown, of New Britain, had been the selling agents of the National to the mutual advantage of both parties. At the expiration of the contract, the new owners of the National declined to renew it, when the firm determined to enter the field on their own account, and accordingly, in 1875, Mr. Cook built a factory with a capacity for producing ten thousand gross of screws in ten weeks.

Mr. Cook invented the holder for forming the heads on the wire, and the combined thread and power for cutting the spiral on the blank, and at the same time produced the spiral itself. The processes are covered by two broad patents taken out by Mr. Cook, and are admitted by leading manufacturers to be the most effective combinations for the purpose ever devised.

Since 1875 Mr. Cook has devoted his energies mainly to the work of inventing, improving and making machinery for the production of wood screws, having in the past built several large factories at home and abroad. In this special field his superiority can hardly be questioned. He also makes a full line of machinery, much of the same description, for turning out tire-bolts, stove-bolts and lag-screws.

Like other gifted mechanics he has been borne by the tidal waves of the hour into the electrical field as a side-issue, and has made dynamos, arc lamps and other appliances.

By the force of industry, skill and fair dealings, Mr. Cook has accumulated a handsome property. His works are located in the west wing of Colt's Armory, which he entered in the business by three sons—Millard F., John F., and Albert S., all well educated, and the first two practical mechanics. In 1896 the business was incorporated as the Asa S. Cook Company, with a capital of \$25,000. Asa S. Cook, president and treasurer; John F. Cook, secretary; Millard F. Cook, assistant treasurer.

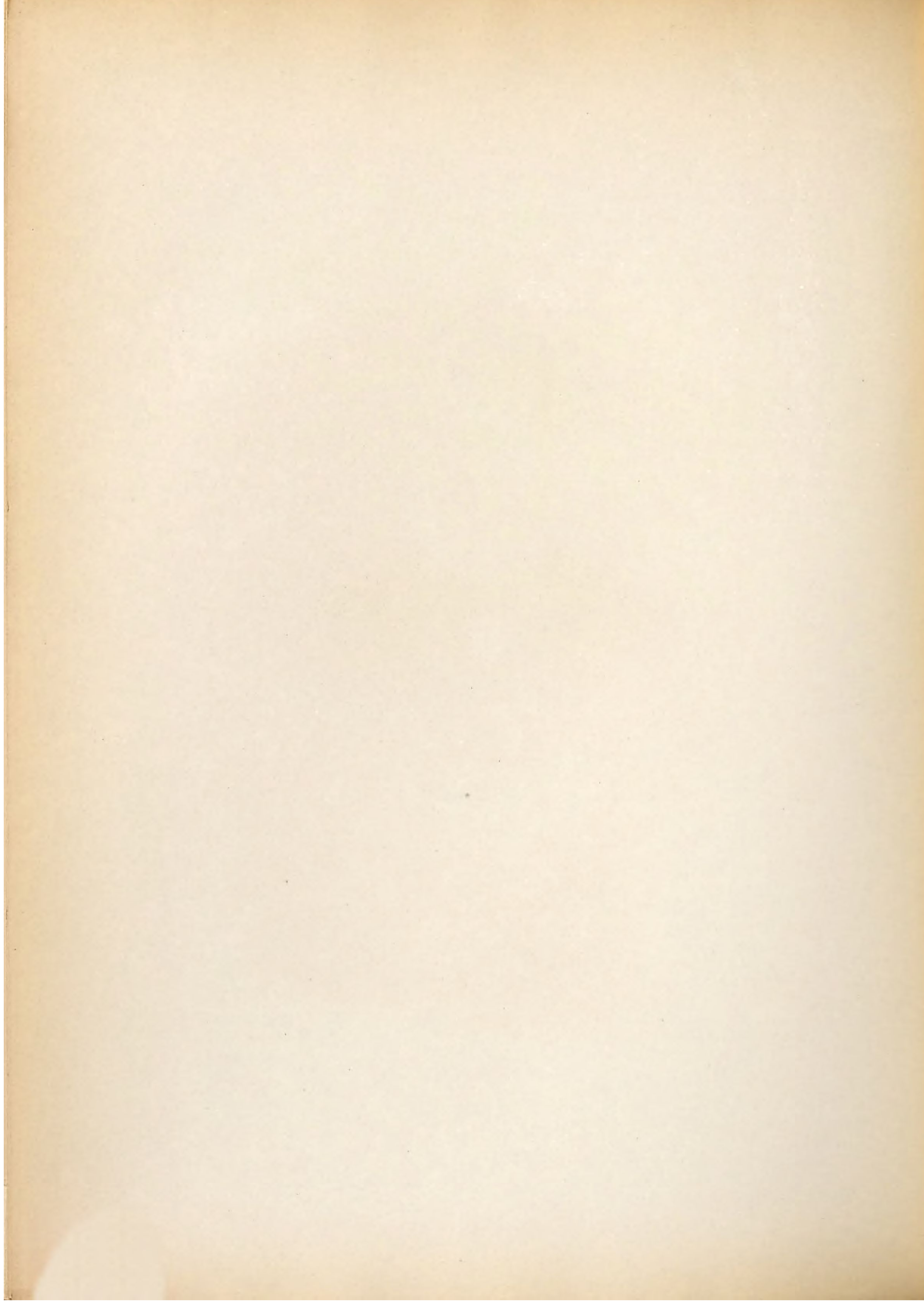
The SMYTH MANUFACTURING CO. was organized in 1879 to develop the machine invented by David M. Smyth for sewing books with thread. Up to this time the work had been done by hand. The enterprise at first encountered the full measure of difficulties that are apt to beset invasions of new territory in the field of mechanics. In 1884, Charles C. Kimball, who has been equally successful as a financier and manufacturer, accepted the presidency. At that time the machine was still imperfect, but he had faith in the correctness of the principle. Hence with tireless persistence he labored both to eliminate imperfections and to overcome the prejudices of book-binders who with here and there an exception viewed the scheme as visionary. Patience, tact, and a fertility of resource suited to the conquest of both material and moral difficulties, won a complete victory. The machine has been introduced into leading binderies wherever the art is known, even in Russia and in the islands south of Asia. The processes are covered by many patents.

The company have recently placed on the market the Smyth bookcase machine, having been the first to succeed in an attempt where many have failed. Time, money and talent have been devoted without stint to the conquest of obstacle after obstacle in the way of success. The machine is easily adjusted to different sizes and to great thicknesses of material. One person feeds cut cloth to fingers,



Engd by H.B. Hall's Sons, N.Y.

Asa S. Cook



and all the other operations are automatic. The work is far superior in accuracy and finish to that performed by hand. Each machine turns out from twelve to fifteen cases per minute with no waste. The saving in labor amounts to eighty per cent.

Capital \$300,000. Officers: Carlos C. Kimball, president; Charles H. Smith, vice-president; George C. Kimball, secretary and treasurer; Robert H. Schutz, assistant secretary.

TYPE-WRITERS.—The American Writing Machine Company, otherwise known as the Caligraph, came to Hartford in the spring of 1885 in a state of collapse. Organized in New York city in 1880, it moved to Corry, Penn., two years later, in consideration of a bonus, and having staid the term required by contract, found its last days worse than the first. At this juncture the concern was transferred to Hartford as a very sick patient is sent to the mountains, more from hope than expectation that the change might prove beneficial. The effect was marvelous. Very soon the machine itself was radically improved by the skillful mechanics of the city. Under the able management of John M. Fairfield the debts were paid, the royalty and patent accounts were extinguished, and dividends of forty, fifty, and even a higher rate per cent. were distributed. Another crisis then arose. A majority of the stockholders living elsewhere and caring little for local interests, readily entered the trust formed to control the trade. Organized under the laws of New Jersey with headquarters in New York city, the syndicate absorbed the six most important companies in the country, capitalizing the properties on their earning power at \$20,000,000. Mr. Fairfield declined to take any position in the trust because he had long been planning, in view of an inevitable fall in prices, to put on the market a first-class type-writer at a cost to the buyer not to exceed fifty dollars. He expected to make up for small profits on each by the size of the output. With thorough knowledge of the business he went to work with the determination to produce a machine that should at least be equal to any in the field. Over two years of steady labor were applied before results were accepted as entirely satisfactory. In December, 1893, The Hartford Type-writer Company was organized with a solid capital of \$60,000, free from handicap of any kind, but not till August, 1895, did they reach by a process of evolution a machine that both realized the ideals of the promoters and fully met the requirements of patrons. The factory is located on the second floor of the Steel Tube Works at the corner of Park and Laurel streets. Officers: John M. Fairfield, president and treasurer; Edmund J. Fairfield, secretary.

ATLANTIC SCREW WORKS.—In 1875 a concern started to make wood screws at Castleton-on-the-Hudson, N. Y., and took its name from that of the town. In two years the company lost \$70,000 of its own money, and about \$35,000 more, borrowed from George W. Bruce, a wholesale hardware merchant of New York city. To secure his loan Mr. Bruce took possession of the plant in 1877, and threw the original machines into the scrap heap because they were found to be worthless.

Meanwhile David Tilton, superintendent of the works, had made various improvements in the devices for threading, which so impressed Mr. Bruce that he decided to develop the machine with the view of reviving the business. His faith was not misplaced. A model was set up in Brooklyn, N. Y., where the tests for quality and quantity were so satisfactory that other machines of the same type were built. In 1879 the manufacture was transferred to Colt's West Armory in Hartford, and formally resumed under the name of Atlantic Screw Works. The new departure proved eminently successful.

Mr. Bruce spent about three years abroad, a part of the time assisted by Mr.

Tilton, who personally supervised the exhibition of the threader in France and Belgium. He took out a number of foreign patents and built duplicate machines for use in Europe. Paralytic weakness and loss of eyesight forced him to abandon the enterprise. He returned to his home in New York, where he died November 14, 1887. He left so deeply his obligations to Mr. Tilton for long and faithful service that in his will he not only made him his sole heir and executor, but also provided for the sale to him of the screw thread machine. Mr. Tilton now became sole owner, and has enjoyed a continuous increase of prosperity which began with the introduction of his inventions. He was born in Norwich, N. H., November 29, 1834. He is assisted by his son, Fred. S. Tilton.

I. H. Davis.—Ira H. Davis, born at Oxford, Conn., April 15, 1817, at the age of seventeen years received education as the common school afforded, left home for New Haven to pursue the study of masonry. In 1841 he located in Seymour, Conn., and engaged in building. In the fall of 1854 he went to Syracuse, O., as agent for the Howe and Co. Salt Company. Here he remained over two years, operating the plant and supervising the plant. Thence he went to Cincinnati, O., as representative of the same company, retaining the connection till 1866.

At the outbreak of the Civil War the rapid advance of river freights convinced him that boats on inland waters were likely to prove highly profitable. With his friend, William A. Healy, he bought and partially paid for the "Cincinnati City." She was shortly afterward chartered by the government and was paid a handsome advance. Encouraged by success the two friends bought and built several more boats. When Cincinnati was threatened by Kirby Smith he was appointed to assist in the superintendence of the construction of a pontoon bridge for the use of our troops. Owing to ill health, in 1866 he returned home, and in 1868 took up his residence in Hartford.

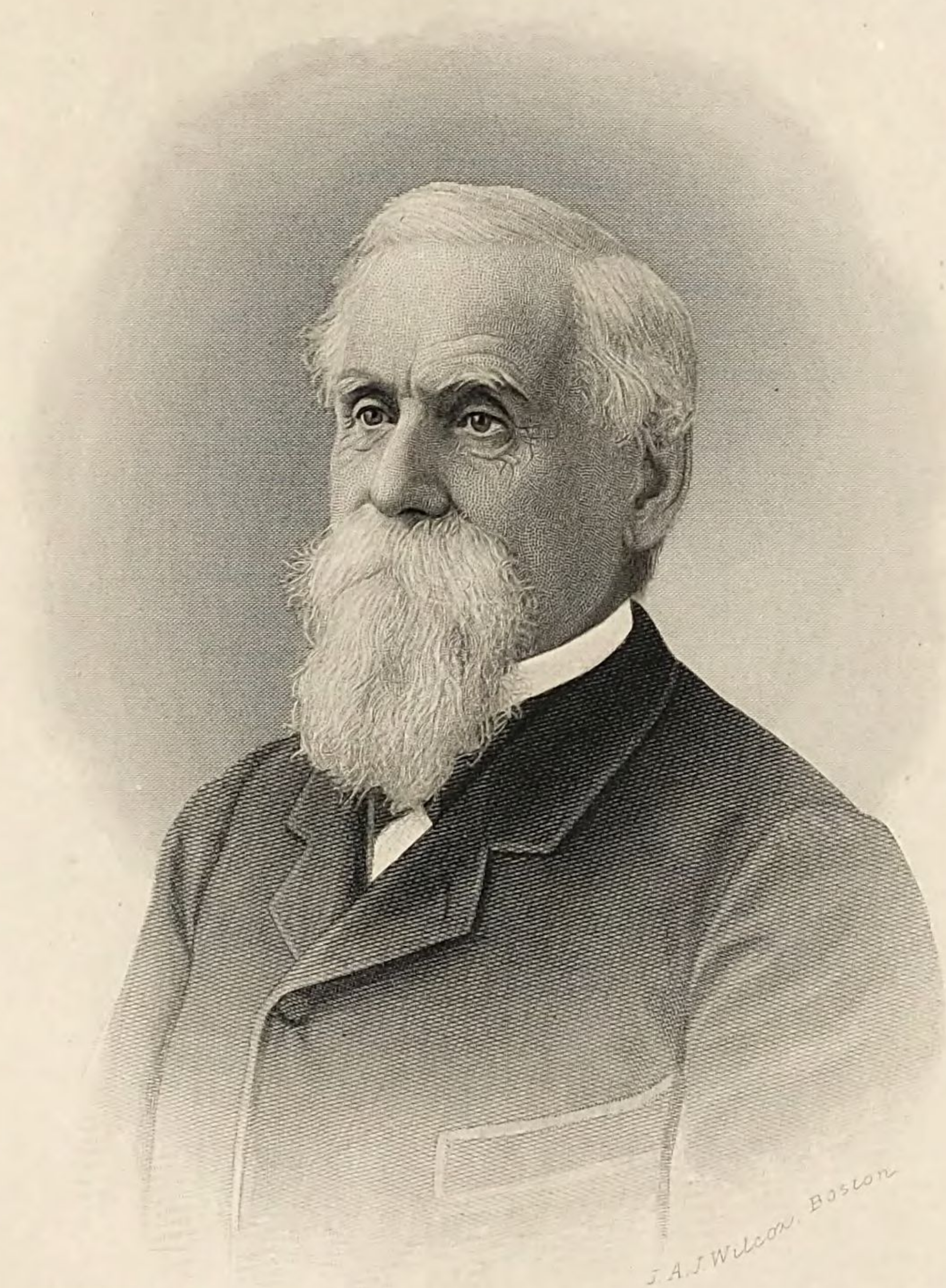
He then began the manufacture of the "Berryman Feed-water Heater and Feeder," a device for heating nearly or quite to the boiling point, by means of a jet of steam which otherwise would enter the boiler cold. The device utilizes the steam before it escapes into the air, adding both to the efficiency and to the economy of the boiler. It also separates impurities from the current in its passage. Mr. Davis applied his inventive and mechanical gifts assiduously to the improvement of the feed-water heater, and its commercial success affords the best proof of the estimation in which it is held by users. Among the special tools designed by him for facilitating the manufacture was a device for bending the "U"-shaped tubes, a work before performed at great expense by hand. He brought out and developed a power pump known to the trade as the Davis Economic Boiler Feed Pump.

His fondness for building led him, partly as a pastime, to erect many houses in Hartford, several of which are among the finest in the city.

In the early nineties he closed out his interest in the manufacturing plant, located at 40 Cushman street, to his son, John O. Davis, who had been associated with him for fifteen years, and retired from active business. He died April 9, 1895.

THE CAPEWELL HORSE NAIL CO.—George J. Capewell will take high rank among the inventors who have found in Connecticut an environment admirably suited to stimulate and develop the talent that revels in finding new ways for enlarging and improving production. Born in Birmingham, England, June 26, 1843, he came to America in 1845, preceded by his father, who brought over an outfit for the manufacture of sporting goods, and located his plant at Woodbury, Conn.

As early as 1876 Mr. Capewell started on a novel line, with the determination to contribute to the world a machine that would turn out horse-shoe nails automatically by a continu-



J. B. Davis



G. P. Capwell.



G. F. Capwell.

ous process. To meet the requirements of the public, the nails must be of the best form and finish, uniform, ductile, strong and stiff enough to penetrate the hardest hoof. In the effort, he proceeded step by step, slowly, laboriously, gaining a little here and a little there, till, after much experimental work had been thrown into the scrap-heap, at the end of four years of intense application, in 1880, he reached a machine capable of turning out automatically fifty nails per minute. In the fall it was exhibited in the building of James L. Howard & Company, where business men were invited to witness its operation. In January, 1881, the company was organized, with a capital of \$200,000. It remained in the Howard block till the winter of 1883-4, when, to secure adequate accommodations, it moved to the building of the National Screw Company, 133 Sheldon street. In 1892-3, at the corner of Charter Oak and Governor streets, the company built a factory, specially designed for its own uses, one hundred by two hundred feet, aside from boiler and engine-rooms. June 26, 1893, the fiftieth birthday of Mr. Capewell, the big engine was started by George J. Capewell, Jr., amid ceremonies appropriate to the occasion. Since that date not a single interval of dullness has interrupted the prosperity of the company. On the contrary, it has scarcely been able to keep up with orders, while competitors have been shut down for months at a time.

Under English patents covering the same inventions the Capewell Horse Nail Company, Limited, capital £110,000 sterling, have large works at Millwall Docks, London.

The machines have been so improved that, instead of fifty, they now turn out one hundred and ten nails each per minute. Wire fed from the coil, after passing through various automatic processes, comes out ready for use. To cover the devices thus embodied, Mr. Capewell has taken out over thirty patents in this country and Europe. In all he has taken out over one hundred patents for sundry inventions, on some of which have been built up large and profitable industries. Among these are the "Capewell Giant Nail Puller," and the self-fastening cone button. Besides having interests in other industries, he is president of the American Specialty Company, located in Hartford, and engaged in the manufacture of specialties, mostly of his own invention. He is now giving much thought to the question of rapid transit.

Aaron White Cook Williams, treasurer and general manager, was born in Manchester, Conn., August 29, 1833, and educated in the public schools of the town. Having acquired a broad and valuable experience in mercantile pursuits he went abroad in 1869, and organized the firm of Williams & Co., which had houses in both London and Paris and was engaged simultaneously in trade and manufactures. After fifteen years he closed out his active connection with foreign interests and returned to America. In 1887 he took the positions he now holds in the Capewell Horse Nail Company, in which he had been a stockholder and director from its organization. In its early days the business struggled with the trials incident to most new enterprises, but of late has been highly prosperous.

The stock of the company was increased from \$200,000 to \$400,000 in 1895, and is held as a choice investment. Officers are E. C. Lewis, president; George J. Capewell, vice-president and superintendent; A. W. C. Williams, treasurer and general manager; G. C. F. Williams, secretary and assistant treasurer.

THE JOHNS-PRATT CO.—This company was formed in 1886 to manufacture an asbestos compound for packing and for electrical insulation. Under the trade name of "vulcabeston" the material has become well known. They also make for electric roads the moulded mica insulator with which many of the largest in the country are equipped. Having outgrown their quarters, they built in 1890 a factory containing

26,000 square feet of ~~space~~ on Capitol Avenue, opposite to the Pratt & Cady Company, to which they sold their former premises. In 1894-5 they added an extension of two stories 40 by 30 feet. In 1895 the capital was increased from \$100,000 to \$150,000. Officers are Henry W. Johns, of New York, president; Charles H. Patrick, vice-president; Rufus N. Pratt, treasurer; and Edward B. Hatch, secretary and manager.

THE SIGOURNEY TOOL CO.—A joint stock corporation, organized under the general law of incorporation in 1880, as The Hartford Compressed Air Pump Company, secured, in April, 1884, on application to the Superior Court, an order changing the name to The Sigourney Tool Company. The original pump business was bought by other parties, and removed to New Jersey.

Before the sale, in anticipation of a change in the direction of its efforts, the company remodelled its works, putting in the finest machine tools procurable, and began to manufacture interchangeable special machinery of a high quality of workmanship. Restricting its endeavors to the finest grades and most delicate adjustments, the company have gradually drawn to its doors a clientage that on various lines are doing at similar excellence. It builds on contract the Smyth book-binding machines, having produced all tools for making the parts of the same interchangeable. It has made many tools for manufacturers of type-writers and bicycles, and has put into practicable form the devices of various inventors. The task of so modifying crude conceptions as to embody them in valuable appliances, requires a high order of mechanical ability, and in this field the company enjoys a wide and well-earned reputation.

For the protection of itself and its patrons the company erected at considerable expense a commodious fireproof building, where special tools are stored at night, and when not in use under the constant care of a competent man. In 1891 it nearly doubled the plant by new construction, and in 1895 bought the lot between the factory and the railway with the view of providing additional facilities. Capital, \$60,000. Officers: G. Wells Root, president; Frederick D. Taylor, secretary, and E. S. Root, treasurer.

THE CUSHMAN CHUCK COMPANY.—The manufacture of chucks was begun in 1803 by A. F. Cushman, in a small way, without capital in money, but with a goodly capital in ingenuity, industry, perseverance, and a determination which surmounted, one by one, the many obstacles that obstructed the pathway to success. Alone he often worked late into the night, perfecting his invention and preparing the earlier samples for the market. The goods are shipped directly to the principal cities of the world, nearly one-third of the total product going to London, Paris and Berlin. In 1881 it was converted into a stock company, with a capital of \$80,000, all of which, except a few shares, is held by the original owner. A. F. Cushman, president; E. L. Cushman, secretary and treasurer.

THE GEORGE WORKS DYE-WOOD MILLS.—The manufactory on Potter street, two hundred by sixty-five feet, and three stories high, is massively built for the storage of material and the operation of the powerful machinery required in the preparation of ground dye-woods. The woods here chipped, ground, and made ready for the market are brought from Africa, Brazil, Central America, and the West Indies, and include logwood, camwood, barwood, limawood, fustic, sanderswood and Nicaragua. To a large degree the work is performed by automatic machinery, invented expressly for the use of the establishment. The production of extract of indigo of a highly superior quality has long been somewhat of a specialty. New England manufacturers of textile fabrics are the principal, but by no means the only, patrons of



A. W. C. Williams

D. H. HURD & CO., PUBLISHERS

the mills. The annual production reaches about \$300,000, constituting an important branch of the business of Beach & Co., to whom it belongs. The house of Beach & Co. was founded in 1833. It began the above manufacture in 1861.

THE WASHBURN CAR-WHEEL COMPANY.—The business of this company was brought from Worcester, Mass., in 1873, when it was organized with its present name under a Connecticut charter. They manufacture steel-tired wheels for passenger coaches, locomotives and tenders, parlor and sleeping-cars. The tire, made from crucible steel, hammered and rolled, is welded to a cast-iron centre. These wheels have been in use for twenty years, and have an unequaled record for mileage. For fast service they have been adopted by the leading railways of this and other countries, and have given a high degree of satisfaction, a goodly percentage of them showing a life of over half a million miles. Capital, \$300,000. Works on Suffield street. Officers, William M. Barnum, president; Salisbury Hyde, vice-president and treasurer; Alfred M. Dodd, secretary.

WILLIAM H. WILEY & SON.—In the fall of 1875 William H. Wiley began the manufacture of over-gaiters, with a capital of twelve dollars, making long days himself, and employing a single girl. Pursuing the established Hartford policy of doing only the most thorough and serviceable work, he soon established a reputation which brought a rapid and continuous increase of orders. In 1885 J. A. Wiley, who had been associated with his father almost from the start, took a one-third interest, and the firm has since been known as Wm. H. Wiley & Son. In 1890 he was admitted to an equal interest. In 1892 the senior partner died, when his share passed to the widow. As the business developed they added to the original line leggings, lamb's wool and bound-cork insoles, and sundry specialties. Mr. Wiley patented several inventions which add materially to the superiority of the goods. In 1887 they became sole makers of United States Government leggings for the army, navy and marine corps, and have held the trade since. On the 1st of May, 1889, the concern moved from No. 265 Asylum street to a new building in the rear of No. 59½ Trumbull street, built for it by the Hartford Fire Insurance Company, occupying two-thirds of it till April, 1895, when it took the other third also. The structure is two stories high and 140 feet long, with a dry basement. Each year the business shows a substantial increase. The firm now employs about 145 hands, mostly women.

THE PERKINS ELECTRIC SWITCH MANUFACTURING COMPANY.—Charles G. Perkins, an inventor of great ingenuity, entered the electrical field in 1878, and has since taken out about seventy patents. He and his associate, Richard W. Woodward, furnished the carbon filaments for the Perkins incandescent lamp, made in Manchester, Conn., till the shop was closed by a patent decision in favor of Edison. As a side issue, in 1888 he began, in Hartford, the manufacture of switches, rosettes, and other appliances for controlling currents of electricity. September 2, 1890, the business was incorporated with a capital of \$50,000, under the general law of the state. In the spring of 1894 he bought a brick shop, of one floor, on Woodbine street, 140 by 40, with an ell 35 by 50 feet. To both he added two stories, and on the same ground erected a carbon-house for the production of the filaments. In 1895 the capital was increased to \$125,000 in cash, when the land, buildings, machinery, patents, and entire outfit were transferred to the company. Besides the small appliances already referred to, they make the arc lamp, invented by Addison G. Waterhouse, and an incandescent lamp, noted for durability, clearness, and economy of force. Officers are: Charles G. Perkins, president; Edward W. Hooker, treasurer and secretary.

THE THORNE TYPE-SETTING AND DISTRIBUTING MACHINE.—The first of

these machines, the invention of Joseph Thorne, was made by R. Hoe & Co. in 1869. Crude and impracticable at the outset, it was, from time to time, improved by the inventor. About ten years later he moved his plant from New Jersey to Colt's Armory. In 1888 R. W. Nelson bought a controlling interest. After nearly twenty years of experimenting, the machine had not yet reached a degree of excellence that won the favor of printers. Mr. Nelson enlarged the plant, brought in a high order of mechanical talent, and being himself a practical publisher, saw its imperfections and found ways of remedying them. In 1888-9 the machines began to be placed on the market at home and abroad. With increased use improvements went on apace. While the cylindrical form and rotary motion have throughout been distinctive features, minor details have been changed beyond recognition. It is now in use all over the United States, in England, Ireland, Scotland, Germany, France, Switzerland, Australia, and other countries. The company is represented in all large cities by its own agents, and on the continent of Europe by the Type-Setting Syndicate. Competition forces both newspaper and book publishers to resort to machines or drop hopelessly behind. Results are reached by different devices, and it has been the steady aim of the producers to make the Thorne the best of the kind. Its excellence may be inferred from its popularity. The factory is on the upper floor of the building erected by the Board of Trade Room and Power Company, now owned by the Hartford Cycle Company.

Capital, \$1,000,000, of which \$200,000 is in seven per cent. preferred, and \$800,000 in common stock. Officers, R. W. Nelson, president; E. T. Linke, treasurer; E. J. Andrews, secretary.

THE MERROW MACHINE COMPANY.—This company traces its lineage to Joseph H. Merrow, ancestor of the present members, who, with his son, in 1838, began to knit undergarments by machinery in a secluded spot in the valley of the Willimantic. Here was built the first knitting mill in the United States. The village that grew up around the factory was at first called Merrowville, but, after the completion of the railway from New London to Palmer, took the name of Merrow Station. By order of the Post-office Department this was changed to simple Merrow in 1883.

Gifted with inventive genius the family devised various machines for facilitating the work. From time to time these were placed on the market and brought into general use. After several years of experimenting, Joseph M. Merrow took out his first patent for finishing the edges of knitted goods in 1877. By him, and under his direction, improvements and new inventions followed till the Merrow machines are now adapted for use not only upon knitted, woven and felted fabrics, but upon other materials, such as paper and leather.

In 1886 the plant was burned, when the firm moved to Norwich, Conn. Thence, in July, 1892, they came to Hartford to improve and increase their facilities, taking quarters at No. 133 Sheldon street. Here the business has steadily grown. Their line includes more than thirty varieties of crocheting or over-seaming machines, and it is believed that this is the only concern in the world devoted exclusively to this branch. Their product is used in the manufacturing states of the Union, in Canada and in most countries of Europe. The company was incorporated in 1894. Capital, \$40,650. Officers: Joseph B. Merrow, president; Joseph M. Merrow, treasurer; George W. Merrow, Secretary.

THE BURR INDEX COMPANY.—The Burr Index Company was organized in April, 1883, succeeding The J. B. Burr Publishing Company. They manufacture Burr's Patent Combination Indexes, and blank books of all kinds. The indexes are largely used by the executive departments at Washington, and at Ottawa, the

Canadian capital, by many large railway companies and firms throughout the country, and in Great Britain. The advantages of the index are its simplicity and the rapidity with which names can be entered and found. The method of arrangement is such that one turn of the hand will give the location of any name desired. It is specially adapted to the use of banks, insurance and railway companies, assessors, state, county, town and city clerks, and all firms having many names to enter. Capital, \$50,000. L. Brainard, president; R. K. Erving, secretary and treasurer.

THE NATIONAL MACHINE COMPANY was formed in March, 1891, with a capital of \$30,000, with the view of continuing and enlarging a small business already established. The capital was increased in February, 1892, to \$60,000, and in December of the same year, to \$100,000. In its early days the concern made fine tools and machines and several torpedo boats of the cigar type. Of late its efforts have been chiefly directed to a few specialties. It makes the "Gally Universal Printing, Stamping, Embossing and Cutting and Creasing Presses," the "Thorne Chaneling and Type Nicking Machine," the "Grant and Hayward Envelope Machines," "Powers' Combination Printing and Envelope Machines," the "Daimler Motor," etc., etc.

Officers: Charles E. Billings, president; Silas Chapman, Jr., vice-president; S. M. Bronson, treasurer and secretary.

Woodward & Rogers, graduates of the Pratt & Whitney Company, formed a partnership in 1884, to manufacture fine machinery. Latterly from twenty to forty per cent. of their production has gone abroad.

Within a dozen or fifteen years the production of ornamental woodwork for interior use has become an important industry in Hartford. Strickland & Shea, Alfred T. Ricker, John McClary, Charles H. Dresser and the Taft Company, in addition to many other things, make mantels, sideboards, wainscotings, church seats, altars, pulpits and fixtures, variously elaborated, for bankers, druggists, jewelers, etc. By patented machinery the Taft Company turns out a great variety of natural and artificial wood ornaments, mostly by stamping under heat and pressure. By the process the equivalent of hand-carving, that costs dollars, is produced for cents. Most of these concerns own their own shops.

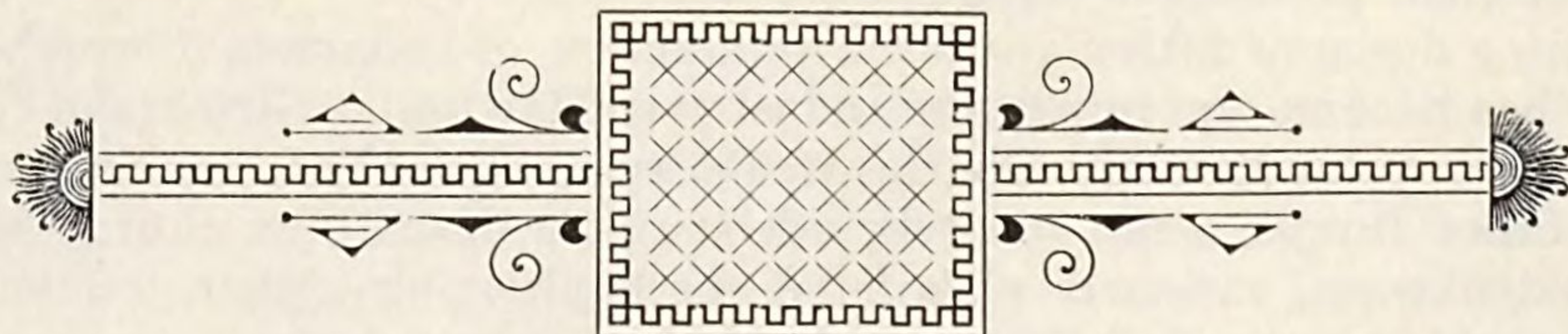
Mention has been made of a band of steel engravers who flourished here in the early part of the century. The art has returned in modern forms. A. Mugford employs a corps of nearly forty engravers, designers, electrotypers, etc., who are engaged mostly on commercial work. R. S. Peck & Company, in connection with their printing office, do designing, wood-engraving, half-tone, line work, embossing and electrotyping. They employ eight artists. The Hartford Engraving Company, with some outside trade, is mainly engaged in furnishing the half-tones for the *Connecticut Quarterly*, which starts on its third year with a circulation of about ten thousand copies.

In 1859 W. H. Dodd & Co. succeeded to the lithographic business established about 1832 by Case & Green. On a large scale the firm does plain and colored work, mostly for commercial uses. This was the first concern in New England to import a power press for lithographic printing.

The limits at first set for this bit of local history have long been passed, while many enterprises are left unmentioned. The story of these of later birth others will tell hereafter. Such as now have a world-wide reputation were once weak. Some that are young will develop into like strength.

Many matters connected with the industrial growth of Hartford might be read with profit, but we will close with brief mention of a move which gave the city a

decided upward impulse. In 1888 strong men, representing its intellectual and business forces, formed a board of trade. The ideas that have since guided its policy soon took definite shape. First the city was thoroughly canvassed to find out the extent and condition of her industries. The public had lost sight of the shop owing to large investments in banking and insurance. These inquiries emphasized the value to eastern communities of the mechanical arts, and thus gave a new turn to local ambitions. Since then growth has been rapid and continuous. The influence of the body, too, has always been exerted on the side of good government and sound morals. It has been one of the organs through which the collective wisdom and energy of the city have reached the public and helped to form healthy opinion.



CHAPTER LXXXIV.

THE MANUFACTURING INTERESTS OF NEW HAVEN.

BY A. B. UNDERWOOD.

NEW HAVEN, which long ago received the sobriquet of "The City of Elms," is one of the oldest cities in the United States, and one which, perhaps, has become as well known throughout the land as any other, largely from the fact that it is the birth-place of "Old Yale," whose graduates are, and have been, among the most prominent men of the country. It was the fifth incorporated city in the United States, only New York, Philadelphia, Albany and Richmond having charters granted exclusively, and it has the honor of being the first incorporated city after the independence of the colonies was recognized, its charter dating to January, 1784.

Early in September, 1637, a party of some twenty stalwart men sailed into the harbor of New Haven, then called "Quinnipiac." They were Englishmen from the colony of Massachusetts, who were exploring the southern shore of Connecticut for a suitable spot to establish a new colony. The party were so well pleased with the beautiful situation and advantages that measures were at once taken to secure it. Leaving seven men behind to pass the winter there, they hastened back to Boston.

Early in the spring of 1638 the company, with considerable additions from the Massachusetts colony, returned and took up their abode in the newly-acquired territory, and at once began building for themselves comfortable homes, little dreaming into what a prosperous and wealthy community the wilderness before them would develop.

The colony was the wealthiest that had emigrated to New England. Its leaders had been merchants in their native country. The chief end they had in view was to establish a commercial community. The company, which came in the ship "Hector," numbered fifty adult men, or, including men, women, children and servants, two hundred and fifty souls. The colonists believed that the timber in which the country abounded, and the pelts and furs of animals with which the woods and streams were supposed to be filled, would furnish an exhaustless supply of material for export. In these hopes they were soon disappointed. For a few years their timber, cut into staves, found a limited market in the West Indies, in exchange for wine. Their peltries and furs, while their abundance continued, found a slender market abroad. None of these commodities, however, were found to be adequate in providing such necessities as were indispensable for their comfort. Within three years the colonists were exporting shingles and spruce masts to the West Indies, and trading with the East Indies, Virginia and the Barbadoes, and had purchased a plantation in Delaware Bay to establish an English settlement there. They were driven out of this planta-

tion temporarily by the Dutch, who held possession in the immediate vicinity ; but this difficulty was adjusted after New Haven had joined the Confederation of New England Colonies. The Confederation exerted its influence with Holland and Sweden, and the government of these countries took such steps that their colonies in Delaware Bay ceased harassing the English settlers there. To Virginia the New Haven colony sent flour, biscuit and beaver, receiving in return tobacco ; and to the Barbadoes they sent beef in return for sugar.

In 1639 the colony formed its first Constitution—all civil business having up to that time been transacted by Davenport, Eaton and other officers of the joint-stock association. In 1650 the New Haven colony had grown to eight hundred inhabitants, and in 1665 it felt so prosperous that a contribution was taken on Thanksgiving Day for the "Saints" in England. Many ministers in England had been ejected from their settlements and cut off from means of obtaining bread for themselves, their wives and children. As the colonists had neither banks nor currency, grain and other commodities were contributed and sent to the Barbadoes, where they were exchanged for sugar, which was taken to England and sold. This cargo brought ninety pounds sterling, which was presented to "The Saints."

The want of a sufficient currency as a medium of exchange was felt by the colonists from the start, and the use of wampum was forced upon them. As early as 1646 the colony undertook to open up commerce with the mother country. An organization called "The Company of Merchants of New Haven" was formed and the ship "Fellowship" was chartered for a voyage to London. The cargo consisted of peas, wheat, hides, beaver and plate, valued in all about 5000 pounds sterling. Seventy persons sailed away on her, among them some of the most valued residents of the colony. No tidings were ever heard of this pioneer vessel after leaving port, except in the "Phantom Ship," which was seen off the harbor in the air one day the following year. This mirage was supposed, by the superstitious people, to have been designed by Providence to make known to the colonists the loss of the great ship. This disaster brought to a premature end the ambition of the colonists for foreign commerce during the first generation, and they settled down to husbandry and handicraft.

No records of the numbers of the artisans of the New Haven colony were kept, but ten years after the settlement men versed in every branch of the trades then known could be found among them.

The manufacturing industry was early begun by the settlers, and it has kept a brisk pace to the present day. Within nine years after the New Haven plantation was settled, shoes for exportation were made. Timber and beaver skins as exports were diminishing, and the other branches of manufacturing did not take on the life that characterized the production of leather and the manufacture of shoes. Calf, deer and goat-skins were abundant, and shoes could be put into the English market cheaper than it was possible for London manufacturers to produce footwear of a much poorer grade. No accurate records were kept of the extent of the shoe-manufacturing industry of New Haven at this interesting period, but it is certain that for a decade the prosperity of the colony hinged on the success of the ventures of enterprising private individuals who put a better article of footwear on the London market at a lower price than the home merchants of the greatest metropolis in the world were able to.

Bakers have flourished in New Haven from the time the colony was founded. In perhaps no New England city have so many families patronized the bake-shop as in New Haven, and even in the first decade biscuit was shipped to Virginia and the

West Indies. Laws were immediately passed fixing the size of the loaf and the price which might be charged. A bread inspector was appointed to enter any house or bake-shop and make examinations, in company with a constable, and to inflict a severe penalty for any violation of the law.

In 1765 the brig "Derby," of Derby, a vessel of forty tons, arrived from Dublin with twenty tons of coal and thirty-eight Irish emigrants. This is the first record of coal being brought to this country, and the passengers were the first emigrants to come to New Haven. About this time the raising of flax in enormous quantities, and the domestic manufacture of lime grew to be one of the chief industries of the city. In 1655 iron-works were started at Lake Saltonstall, but the venture proved unsuccessful, and the project was abandoned after a few years.

The first century, however, had not passed before the manufacturing and mercantile interests of the city had attained extensive dimensions. The manufacture of carriages, in which line New Haven has since been one of the leading cities of the world, was inaugurated by James Brewster, in 1827. The manufacture of fire-arms had already become an important industry, having been founded in 1798 by Eli Whitney, and a few years later Charles Goodyear, a native of New Haven, made a discovery which soon made him famous, by manufacturing the first rubber clothing. The wholesale hardware business, which has always been among the leading industries of the city, dates back to 1784. The wholesale grocery trade began to assume considerable proportions in 1825, which was soon followed by the wholesale drug business. Other branches of manufacture followed the pioneers in quick succession until the present time, when the products of New Haven concerns can be found in every quarter of the globe.

The distinguishing characteristic of New Haven business interests is their manifold variety. There is hardly a commodity of extensive use, from a needle to an engine, that is not manufactured in this city. This fact has proved, in itself, of great importance to the welfare of New Haven, as during the recent depression the variety of her interests rendered the city unusually exempt from the troubles of the times.

THE GEORGE ALLING'S SONS COMPANY, wholesale and retail lumber dealers, was incorporated in January, 1885, with a capital of \$50,000. The business was established a number of years before incorporation, and has grown up with the city, and no concern in the trade maintains a higher reputation or has rendered more uniformly satisfactory service to those having business relations with it. The spacious yards of this company are located on East Water street, where the visitor will find a full stock and large assortment of southern pine timber and flooring, of which a specialty is made; North Carolina pine ceiling and flooring, ash, black walnut, maple, oak, cherry, whitewood, mahogany, etc. They are also large producers of mouldings of every form, wood-turning, scroll-sawing and general mill work. They give employment to a large number of hands. The company is composed of practical men, and their long years of experience, ability and foresight have enabled them to attain successful results. They are well known and have a large trade throughout the state. The present officers of the company are: President, Charles E. Alling; treasurer, George A. Alling; secretary, Edwin H. Barnum.

MAYER, STROUSE & COMPANY, manufacturers of corsets, corset-clasps and paper boxes, is among the largest in its line in New England, and the reputation of the products of the concern is unsurpassed. The business was established by I. Strouse & Company in 1861, and from its infancy the growth has been phenomenal. The present members of the firm are Abraham Strouse, Max Adler and S. L. Mayer.

They began business under the present name in 1881. Their factory plant is located on Court street, where over one thousand operatives find employment. Additions have been made to the plant from time to time until the present, when several acres of ground are covered with large and substantial buildings, which also are equipped with the most improved machinery. The goods produced by this firm are well known among the trade and popular with the consumers. Mr. Adler is a resident of New Haven and superintends the manufacturing operations. Messrs. Mayer and Strouse devote their attention to the salesrooms at 412 Broadway, New York. The products of this firm are sold to jobbers in all parts of the world, and are recognized as standard everywhere.

E. STANNARD & SON, iron founders and pattern-makers, located on Artisan street, is one of the best known firms in the state engaged in that line of manufacture. The business was started by the elder Mr. Stannard in 1863, and its growth, although gradual, has been financially healthy. Additions have been made to the works from time to time, and to-day the plant represents a pushing and prosperous concern. The business is conducted by Loren H. Stannard, who is practical in every detail connected with the factory, and, although their trade is principally confined to the state, the firm-name is well and favorably known with the trade. In addition to conducting a regular foundry business, the firm is the licensed manufacturers of the "Goetz Box Anchors and Timber Caps," which have been used in all the principal buildings recently constructed in the state. The firm employs many skilled workmen in their pattern department, where they are able to produce anything in that line in competition with the best of concerns. Mr. Stannard is a thorough business man.

H. C. WARREN & CO., bankers and brokers, insurance agents, steamship tickets and foreign exchange, 108 Orange street, is one of the solid financial institutions of New Haven. This successful house was instituted in 1868, and in 1877 Mr. Warren became interested in the concern. The firm are extensive dealers in miscellaneous securities and western mortgage loans. The loans sold by the firm are made by strong corporations, organized under the laws of the state where the property is located, and pay the highest rate of interest current. In the experience of this house, covering a period of about twenty years, they have never had a single instance of default in principal or interest on any loan sold by them. The firm have every facility for supplying steamship tickets to all parts of Europe and southern ports, and cabin plans of all steamers can be found at their office. They also sell drafts on all foreign countries at the lowest rates of exchange. The firm represent many of the most reliable insurance companies doing business in the United States, and are prepared to effect insurance to any desired amount at minimum cost. They also maintain safe deposit boxes in burglar and fire-proof vaults. The firm are always ready to impart full information on application by mail or otherwise.

STRONG, BARNES, HART & CO., wholesale dealers in Swift and Armour's western dressed beef, also home-dressed mutton, lamb and veal, have an extensive plant, 163 to 169 Long Wharf. This is doubtless the oldest and probably the largest wholesale meat house in Western Connecticut. The firm was inaugurated in 1854 by Horace H. Strong and Franklin H. Hart, and later Messrs. Barnes, Mansfield and Burgess were admitted, and the present firm was organized in 1872. The firm has been energetic and prosperous from its inception, the members being not only thorough business men, but popular with the trade. An idea of the firm's business may be gathered from the volume of their output, which embraces from ten thousand to fifteen thousand beef carcasses per year, consigned principally from Swift and Armour, of

Chicago and St. Louis. Between thirty thousand and forty thousand sheep, lambs and calves are also annually slaughtered for this house. They have exceptional facilities for handling and supplying the best western dressed beef, lamb and mutton in the country at the lowest market prices, and for the prompt delivery of any quantity of merchandise, however large, to points near or remote at short notice. They employ about thirty hands, and their trade extends all over the state.

J. D. DEWELL & Co., wholesale grocers, is one of the best known, and ranks among the oldest wholesale houses in New Haven, its origin dating back to 1850. The firm occupy the large four-story building, Nos. 233 to 239 State street, with over thirty-two thousand feet of floor surface, and carry a complete and extensive stock, comprising a full line of fine family and staple groceries. They are also large importers of teas, molasses and salt, which they handle in large quantities. Messrs. Dewell & Company are also agents for the leading Minneapolis flour mills, and handle their product by the car-load. The firm is recognized as one of the most enterprising and reliable in its line in New Haven, and the house is a favorite source of supply for the retail trade of Connecticut and other parts of New England. The firm, as now constituted, is composed of James D. Dewell and Frederick B. Street, both influential citizens and leaders in society as in trade circles. Mr. James D. Dewell, the senior member of the firm, is one of the best known citizens of New Haven, both politically, financially and socially, and at present holds the honored position of lieutenant-governor of Connecticut. He is also president of the West Shore Railway Company, and vice-president of the Security Investment Company, and a director in the City Bank of New Haven, besides holding other offices of a social nature.

STODDARD, KIMBERLY & Co., wholesale grocers and importers, 213 and 215 Water street, have been so long before the public and the trade that they are as well known as any house in their line in New England. This house was established in 1838, and has always held a prominent place in the trade. The individual members of the firm are E. C. Stoddard, A. H. Kimberly and C. B. Gilbert, all men of high standing both financially and socially. Their modern storehouse, erected by them a few years ago, is not only well equipped for business purposes, but well stocked with a full and complete line of teas, coffees, spices, sugars, syrups, etc. They also carry on a large importing trade in molasses, of which they make a special feature. They also deal largely in tobacco and cigars. By honorable dealing, closely watching the market and carrying a selected stock, they have established a trade second to none in their line in the state. Mr. E. C. Stoddard, the senior member of the firm, is connected with many other enterprises, in which he holds positions of trust. He is president of the New Haven County Bank, vice-president of the New Haven Savings Bank, and a director in the Mercantile Safe Deposit Company. Mr. Kimberly is also a director of the National Tradesmen's Bank.

THE CHARLES MONSON CO., jobbers, direct importers, and retailers in dry goods, at 762 to 768 Chapel street, stand at the head of the dry goods trade in New Haven county. They conduct one of the best-lighted and appointed stores between New York and Boston. The business was founded at the present location, by Charles Monson and D. L. Carpenter, in 1865, and in 1883 Mr. C. M. Walker was admitted to the firm. In February, 1892, a joint stock corporation was formed with a capital of \$25,000, and Wilbur F. McEwen became an active partner. The stores are centrally located, and are fitted up with all the modern appliances for the convenience of the trade, and their reputation for fair and honorable dealing, reliable goods, a full and complete assortment of everything usually found in a first-class store, and cour-

teous treatment to their patrons, has built up for them a large business and an enviable reputation. Besides their home patrons they draw a large trade from surrounding towns. The present officers of the company are: president and treasurer, Charles Monson; secretary, Charles M. Walker.

CHARLES S. LEETE & CO., wholesale and retail druggists, 297 to 303 State street, is one of the oldest and most reliable drug houses in New Haven county. The business, which has been so successfully carried on since 1873, was originally established as far back as 1824. The premises occupied comprise four floors, each one hundred by thirty feet, and the stock of drugs, patent medicines, chemicals, paints, oils, glass, brushes, etc., etc., is complete, and unsurpassed for quality and general excellence, and the volume of trade extends all over the New England states. Mr. Charles S. Leete is the only active member of the firm, and his active business capacity and sterling integrity are highly esteemed in commercial circles, and his promptness, liberality and just dealing, together with the excellent quality and purity of all pharmaceutical preparations passing through his hands, have gained a widespread reputation, and retained an increasing and superior class of patronage. Mr. Leete's business ability and influence are also felt in other institutions in which he takes an active interest. He is president of the Mechanics' Bank, of New Haven, and is also president of the Security Fire Insurance Company.

THE J. GIBB SMITH & CO., lumber dealers, 136 Water street, stands well among the leading lumber concerns in the state. The firm is an incorporated company with a capital of \$50,000. They enjoy an extensive trade from New Haven and surrounding towns. In addition to the large stock of lumber and timber of all grades, they make a specialty of mill work in all its branches, and manufacture large quantities of doors, sash, blinds, mouldings, mantels, stairs and cabinet work, store and office fixtures, all of which are produced by skilled workmen and in a highly satisfactory manner. The present officers are: president and treasurer, J. Gibb Smith; secretary, R. Charles Dickerman; superintendent lumber department, Edward A. Prince.

THE MORNING NEWS CO. was incorporated in 1882 with a capital of \$50,000. The New Haven *Morning News* which they publish has a large circulation and is one of the leading family papers of western Connecticut.

THE F. C. BUSHNELL CO., wholesale grocers, 221 and 223 Water street, is one of the reliable and progressive mercantile institutions of New Haven. It is incorporated under the laws of the state, with a capital of \$100,000. This firm carries a large and complete assortment of teas, coffees, spices, canned goods and general groceries, and have established a large trade both locally and through the state. Mr. F. C. Bushnell, the senior member of the firm, has had long years of experience in this line of business and has made hosts of friends in the trade. The present officers of the company are: president, Frank C. Bushnell; vice-president, F. L. Andrews; treasurer, E. M. Somers; secretary, M. W. Shaughnessy.

C. S. MERSICK & CO., importers and dealers in iron, steel and metals, occupy four connecting stores, Nos. 286 to 292 State street, in which locality the house has been long established. The firm is composed of C. S. Mersick, L. H. English and R. S. Woodruff, all thorough and active business men, and stands among the oldest and strongest financial houses in the city. This house carries a full line of manufacturers' supplies, general hardware, and supplies of all kinds for plumbers, tin-smiths and blacksmiths. They carry all grades of Bessemer steel, machinery steel and soft steel for forging, and are also manufacturers' sale agents for bar iron, hoop and band iron, also galvanized and black sheet steel. The firm enjoy a reputation of high standing among the business community, and their patrons come from all

parts of New England. Mr. C. S. Mersick, the senior member of the firm, is a man of considerable prominence both financially and socially. He is at the head of the Merchants' National Bank of New Haven and is also prominent in other organizations.

AUSTIN MANSFIELD & SON, lumber and coal dealers, 505 Grand avenue, carry on an extensive and lucrative business and are one of the most popular concerns in the city. The firm is composed of Austin Mansfield and Louis A. Mansfield. They carry a large stock of coal and lumber, timber, shingles, and laths, also all grades of western lumber, southern pine, and North Carolina flooring and wainscoting, which they sell in any quantity and at the lowest market prices.

ENGLISH & HOLT, lumber dealers, 126 Water street, are among the popular business houses in New Haven. The firm is composed of Albert S. Holt, Edwin H. English and Charles E. P. Sanford, men of strict integrity and extensive business ability, and stands high in the community. They do a large trade in all kinds of lumber and timber. They purchase direct and in such large quantities that they are able to sell at the lowest market prices, and their facilities for business are equal to the best.

JAMES GRAHAM & CO., brass founders, at 292 Wooster street, is one of the oldest concerns in their line in New Haven. The business was inaugurated in 1861 by Mr. James Graham, who has been the means of pushing the enterprise to a successful issue. The firm at present consists of Messrs. James and Charles E. Graham, and the house is favorably known throughout New England as one of the representative and leading brass-founding concerns in this section. A large group of furnaces are kept constantly in operation and the output of the concern is always of standard excellence, and in their special lines their work is unsurpassed. They give employment to a large force of skilled workmen, and their plant is well equipped with all the modern appliances and improved machinery for their purposes. They manufacture all kinds of brass and composition castings and all grades of Babbitt metal. They make a specialty of the patent nickel bronze-centre car-journal bearings which have become so popular in railway car work. The products of this concern are always reliable and possess the confidence and esteem of the trade. The senior member of the firm has held many offices of trust and is one of the most popular men in New Haven, politically, socially, and business-wise.

THE L. CANDEE & CO., corner of East and Green streets, manufacturers of rubber boots and shoes, is an old-established concern and is well known the world over. This company was founded in 1842, and the business has had a phenomenal growth. In 1850 a stock company was organized with a capital of \$600,000. The L. Candee & Company, who were pioneers in their line of industry, and started in a modest way, have now attained a leading place in the houses of the world engaged in the manufacture of rubber boots and shoes, and the products of this great corporation are in the hands of representative jobbers and dealers in every country in the world.

The factory plant consists of several large and substantial buildings, each from four to five stories in height and covering an area of about four acres. The extensive works are equipped throughout with valuable machinery of the most improved pattern. The machinery is driven by five large Corliss engines, while twenty-one large boilers are required to furnish the vast amount of steam used. The products of this company are of the highest grade of material and quality of workmanship. The best Para rubber and finest wool felts are used, and the company always conforms to the prevailing styles of footwear for ladies, gents and children, accommodating their product to the changes in toes and heels of the boots and shoes worn from year to year. They make all styles of rubber footwear for ladies, gents, misses

and children, from the light sandals worn by ladies and children to the heavy boots worn by miners, lumbermen and fishermen. A full line of arctics and lumbermen's overshoes are also among their products. The company gives employment to about one thousand five hundred operatives, and turns out about twenty thousand pairs of boots and shoes daily, or over six millions per year.

The present officers of the company are: President, Henry L. Hotchkiss; Secretary and Treasurer, Charles L. Johnson. These gentlemen have been long identified with this concern, and, through their efforts and business ability, the success and high standard of the firm and its product are largely due. Mr. Hotchkiss, the head of the concern, is a man of high financial standing and business integrity. He is at the head of the Union Trust Company, a strong financial institution of New Haven, and also a director in the National New Haven Bank.

THE FORSYTH DYEING, LAUNDRYING AND BLEACHING CO., corner of State, Lawrence and Mechanic streets, is probably the oldest, and certainly the largest, establishment of its kind in western Connecticut, and one of the most complete in the state, if not in New England. The business was begun in 1868, and in 1877 the firm was incorporated as above, with a capital of \$25,000. The plant operated by this firm is an extensive one and is equipped with all the latest appliances needed for their work. This company do all kinds of dyeing, laundrying, bleaching, carpet beating, etc., including work on the most delicate fabrics. The present officers are: Thomas G. Forsyth, president and secretary; J. C. Cable, treasurer.

THE ELM CITY DYE WORKS, located in Westville, on the Waterbury turnpike, at the junction of the Woodbridge road, is quite an important industry in its line. Mr. William H. Forsyth, the proprietor, has had long experience in this line of work, and is not only practical, but thorough at the trade. His business is largely of a wholesale nature, coming as it does from merchants and manufacturers. Mr. Forsyth has gained the respect and esteem of his patrons, and his work is, at all times, satisfactory. He has built up a large and lucrative business, which is having a healthy increase.

THE FARREN BROTHERS COMPANY, whose main office and factory is located at No. 4 Artisan street, was incorporated in March, 1886, with a capital of \$34,000. The firm is one of the principal concerns in New Haven county engaged in the manufacture of metallic spring beds. The business dates back to 1875, when it was first started by Roswell B. and Willis H. Farren. The business has been successful from the start, and to-day the name of the Farren Brothers Company is known far and near. The firm have a reputation for producing an excellent bed. They import the steel especially used for this purpose, and their goods can always be relied upon. These beds are so constructed that they can be rolled up in a compact form for transfer or shipment, and can be adjusted to any width, which is oftentimes quite an important feature. The firm give employment to a large force of skilled workmen. The present officers of the company are: President, Willis H. Farren; secretary and treasurer, Roswell B. Farren. They are both men of sterling business qualifications, well known and respected among the trade, and highly esteemed in the community in which they reside.

PECK BROTHERS & COMPANY, manufacturers of brass faucets and plumbers' material, is, without doubt, the best known house in its line in New England, and its reputation throughout the United States is not surpassed by any other firm. The products of this concern are fine brass goods, for water, gas and steam, which are made up in all the latest designs of the art. They also manufacture materials of all kinds for plumbers, gas and steam-fitters. Most of the artistic work is from special designs

of their own, their motto being, "We lead, let others follow." Their local office is at 125 to 129 Chestnut street, New Haven. They also maintain a warehouse at 47 Cliff, and 16 East Twenty-third street, New York city; 259 Wabash avenue, Chicago; and 80 Broad street, Boston. The Peck Brothers are among the most wide-awake and substantial business men of New England, and their goods, which are standard among the trade, can be found all over the United States. The present officers of the company are: President, Henry F. Peck; vice-president, O. D. Peck, Chicago; secretary and assistant-treasurer, Charles H. Downs; treasurer and general manager, John M. Peck. The capital stock of the company is \$720,000.

PECK & BISHOP, baggage express and general transfer agents, are probably better known to the traveling public than any kindred concern in the country. They do a general freighting and baggage express business, maintain a large storage warehouse and conduct a general ticket agency. They are able to give the lowest possible rates to all points and check baggage from house to destination. They have the best of facilities for the moving of machinery, safes, pianos, etc., and operate well equipped covered vans for the safe removal of furniture. They are also city ticket agents for the New York, New Haven & Hartford Railroad Company and Cook's tours. Their main office is at 702 Chapel street, with a branch at the Union depot. Their branch office is of great convenience to the traveling public, where parcels and light baggage can be checked, and left until called for, at a nominal price. The individual members of the firm are Richard A. Peck, George H. Bishop, E. L. Norton, F. M. Carroll, Frederick C. Bishop. The firm has been in business for many years, and no concern of its kind has a higher standing and enjoys the confidence of the public more than they. They give employment to about fifty hands.

THE NEW HAVEN WEB CO. is a concern of no small magnitude or importance in manufacturing circles. It is a joint stock corporation with a capital of \$60,000. The factory plant is located at Centreville, in the outskirts of New Haven, where they manufacture suspender and other webs, both elastic and non-elastic, also tapes and boot webs. The products of this concern have a high standing in the trade, and the output of the mills finds a ready sale. Mr. H. L. Hotchkiss is the president, and Ward Coe, secretary and treasurer and general manager. Mr. Coe is one of the popular business men of New Haven.

A. H. SMITH & CO., needle manufacturers, 81 Day street, is a business concern of long standing. Andrew H. Smith, the principal, has a thorough knowledge of the manufacture of sewing-machine needles, of which he makes a specialty. The output of his factory meets with a ready sale, as the goods are of a fine quality and well known to the trade. The manufacture of needles has become quite an industry within themselves, and Mr. Smith's production stands second to none other; his stock is well selected and the workmanship first-class.

SMITH BROTHERS, oyster cultivators, are among the leading oyster growers of the state. The firm, which is an old established one, is composed of Willis M., Marcus P. and Riley T. Smith, all of whom have been identified with the oyster industry for many years. Their office and shipping house is at 98 South Water street. They own and control over one thousand acres of oyster grounds in Long Island Sound, and their output each year reaches thousands of bushels, and the fine quality of bivalves cultivated by them finds a market all over the world. The firm are well equipped with all the modern appliances for planting, taking care of, and reaping. Their product and their reputation among growers and dealers are of the best, and their trade well established. Willis M. Smith, the head of the concern, is also connected with the firm of S. F. Smith & Company, oyster growers and dealers, who do

a large business in this line. These firms keep a large force of men constantly employed.

BOOTH & LAW, varnish manufacturers, corner Water and Olive streets, are among the pioneer industries of New Haven, and for over half a century they have held a prominent place in the business community. They are large manufacturers of varnishes and japans, and the high standard and quality of their products are well and favorably known among the carriage and wagon builders all over the country. The firm are also wholesale and retail dealers in paints, oils, glass, brushes, and painters' supplies, of which they carry a large stock and quote prices to patrons as low as the lowest. The firm which has held its present name is composed of Lyman M. and Walter B. Law, and George F. Andrews. All are energetic and thorough business men and rank high in the trade, and are held in general esteem as representative business men in the community.

THE DIAMOND MATCH COMPANY, whose headquarters are located at Westville, is an industry of no small magnitude or importance. The manufacture of matches is one of the most important industries in the world, and the consumption is enormous, and the article itself is indispensable. The manufacture of matches was begun in New Haven in 1854 by Aaron B. Beecher, in, practically, a crude form, and the industry has continued to expand until the present time, when the above company practically controls the manufacture of this commodity in the United States. The industry grew to such an extent after its foundation that Mr. Beecher took his sons, Ebenezer and L. Wheeler Beecher, into partnership with him to assist in its management. The firm was then known as A. B. Beecher & Sons, and continued so until 1870, when an arrangement was entered into and a consolidation made with the Swift & Courtney Company. The firm then became the Swift, Courtney & Beecher Company. The business continued to increase until 1881, when the principal match industries were consolidated under the title of the Diamond Match Company, which exists to the present time. The above corporation, which was incorporated January 1, 1881, with a capital of \$11,000,000, controls the match industry of the United States. They operate manufactories and lumber mills in ten different states in the Union, and their production is something enormous. The phenomenal growth of this industry is largely due to the business sagacity and enterprise of Messrs. Ebenezer and L. Wheeler Beecher. The present officers of the corporation are as follows: President, O. C. Barber; vice-president, William H. Moore; secretary, H. C. Cranz; treasurer, J. K. Robinson; general manager, W. M. Graves; all of Chicago. Mr. L. Wheeler Beecher is the resident manager.

H. C. ROWE & Co., oyster growers, are without doubt the largest concern in this industry in New England. This firm is of long standing, being among the pioneers in this industry. Many years ago, Henry C. Rowe, senior member of the firm, conceived the idea of the propagation of oysters as an industry, and his crude attempts at the cultivation of these delicious bivalves proved a success, and it has continued to grow until it has become one of the most important of the great industries of New England, and to-day Connecticut ships hundreds of thousands of bushels of this shell-fish to the markets of surrounding states and to Europe. The cultivated oysters of Connecticut are of a superior quality and flavor to the Chesapeake Bay and other southern stock, and consequently are much sought after. The firm of H. C. Rowe & Company cultivate about fifteen thousand acres of submerged land in Long Island Sound, and give employment to over one hundred hands. They were the first to use steamers in their business in this locality, and their use has since been adopted by nearly all other concerns in the trade.

Their storehouse and shipping plant is located at the east end of the Quinnipiac bridge, and is a model of its kind. Connected with it is a wharf of nearly three hundred and fifty feet in length, with sufficient depth of water to allow the loading and unloading of their boats either at high or low water. The plant is equipped with every facility for the storage, sorting, shucking and packing of ten thousand bushels per week, and, on the whole, is the most convenient, as well as the most complete, in this country. The firm, as now constituted, is Henry C. Rowe and John O. Rowland. Mr. Rowe is probably the best known oyster dealer in America, and is considered authority on matters pertaining to this industry.

THE ANDREW B. HENDRYX CO., manufacturers of metal goods, is one of the largest industries of its kind in the United States. Their factory plant is located at Nos. 18 to 20 Audubon street, where nearly five hundred operatives find employment. The company was incorporated October 1, 1889, with a capital of \$125,000. The firm manufacture bird-cages, fishing reels, chains and wire picture-cord, and their products find a market all over the world. They are the only bird-cage manufacturers of any prominence in the state, and it is estimated that they produce about three-fifths of this class of goods in the world. Their daily capacity is about one hundred and fifty dozen bird-cages, in addition to the numerous other articles turned out by them. The concern uses several tons of metal (mostly brass) daily. The company and its products are well known to the trade, and the industry is one of the most thriving in New Haven. The present officers of the company are as follows: president, Andrew B. Hendryx; treasurer, Harry E. Hendryx; secretary, Edward N. Peck. Mr. Andrew B. Hendryx, the head and founder of the concern, is a popular and thorough business man, and to him the merited success of the organization is largely due.

P. J. CRONAN PAPER BOX CO., located at No. 3 Wall street, is the oldest concern in its line in New Haven. Mr. Cronan began box making in 1879 and has continued successfully ever since. All grades and styles of paper boxes are made here. A specialty is made of shelf boxes for stores, which are made at short notice. A large line of wedding-cake boxes are kept on hand, and a special order quickly filled. The firm are also prepared to fill with dispatch orders of any size for bandboxes and sample cases for agents. They are also dealers in straw, binders and trunk boards, fancy and glazed papers of all grades and colors and a superior quality of patent paste, all of which are kept constantly on hand and can be had in any quantity desired. Mr. Cronan is an energetic business man and exceedingly popular with the trade, not only in New Haven, but elsewhere.

HOBART B. IVES & CO., brass founders, located at 531 State street and 958 Grand avenue, are among the successful manufacturers in their line in New Haven. They are general brass founders and make a specialty of fine bronze and brass castings. They also do a large jobbing trade; door bolts and hardware specialties in bronze or brass are a large part of their products. Mr. Hobart B. Ives, the sole proprietor of the concern, is a practical business man and has a thorough knowledge of his line. He is well known and popular with the trade, and his products find a ready market in all directions.

THE GREIST MANUFACTURING CO., located at Westville, are large manufacturers of sewing-machine attachments and bicycle supplies. They also operate a bicycle department on Chapel street, where high grade bicycles can be purchased, rented or repaired. The company was incorporated in 1892 with a capital of \$35,000. Mr. Ebenezer B. Beecher, who is connected with the Diamond Match Company, is also at the head of the above concern as its president. The remaining officers are: secretary, P. R. Greist; treasurer and general manager, J. M. Greist.

THE BIGELOW CO., whose plant is located from 92 to 102 River street, has grown up with New Haven, so to speak, and the reputation of the Bigelow steam boilers is known all over the country. The business was started many years ago by the late Hon. H. B. Bigelow, whose reputation in the business community was always of the best. The class of work soon became popular, and the business continued to increase until the present time, when the plant covers nearly five acres of ground and over 100 men are employed. The principal product of the concern are steam boilers, tanks and plate iron work which are sent to all parts of the United States, Canada and Europe. The work turned out by this firm is always first-class and gives entire satisfaction wherever placed. The firm is an incorporated body with a capital of \$60,000. The present officers are: president, Frank L. Bigelow; secretary and treasurer, George S. Barnum; assistant treasurer, Walter P. Bigelow, of New York. Mr. Frank L. Bigelow, the head of the firm, has grown up in the business and consequently has a practical and thorough knowledge of every detail. He is one of the most popular men of New Haven in the business and social world.

SPERRY & BARNES, provision dealers and packers, are the oldest and most extensive pork-packers in Western Connecticut. The business was started over a quarter of a century ago, and has had a gradual growth to the present time. The firm consists of Joel A. Sperry, E. Henry Barnes, Joseph Porter and Frank H. Sperry. Their office is at 114 State street, and the packing-house at 188 Long Wharf. They are strictly pork-packers and wholesale provision dealers in every sense of the word. Their packing-house is a large plant, fitted with every convenience for their business, with all the latest labor-saving machinery. Something of an idea of the magnitude of their business may be had from the fact that they employ about three hundred hands, and slaughter and pack over two hundred thousand hogs annually. Their products are sent all over New England and the Middle States. They also do quite a large export trade with Europe. The reputation of Sperry & Barnes' cured meats is of the best. Their uniform quality of excellence has brought the firm's name to the front rank in the trade, as well as with the consumer. Messrs. Sperry & Barnes enjoy a high reputation in the business world, as well as socially, and the members are more or less connected with the financial institutions of New Haven.

THE MERCANTILE SAFE DEPOSIT CO., located at 72 Church street, is one of the indispensable institutions of New Haven, and has become quite popular among persons of means who have occasion to use the advantages offered. The substantial steel vaults, supplied with inner iron safes and special boxes for the storage of silver plate, bonds, stocks, jewelry, wills, precious stones and valuable documents, are absolutely secure from fire or burglary. Coupon-rooms for the convenience of patrons are also accessible. It is considered one of the most secure institutions of the kind in the state. The capital of the company is \$50,000. The officers are: president, Thomas R. Trowbridge; vice-president, Oliver S. White; secretary and treasurer, Charles H. Trowbridge. Mr. Thomas R. Trowbridge, the head of this institution, is one of New Haven's representative business men, following the early business training of his father. He is a man of far-seeing and liberal views, and declines public notoriety, having often declined positions of high trust, both state and municipal, that have been tendered him.

THE EMPIRE AND NEW ENGLAND TRANSPORTATION CO., of which E. G. Stoddard is president, and Louis H. Bristol, secretary and treasurer, is one of the largest lines, doing a like business, through Long Island Sound. They operate a fleet of seven steamers and one hundred and thirty barges, devoted principally to the coal-

carrying trade. Each size of coal is kept separate in compartment barges, carrying from two hundred to one thousand tons each. About one hundred and twenty-five tons is the average capacity of each compartment. The company do freighting to all points on Long Island Sound. Mr. George B. Martin is the resident manager. Their local office is on Water street, corner of East street. Mr. Louis H. Bristol is a gentleman of wealth and high financial standing, a capable lawyer, is more or less interested in various business enterprises, and is a director in the New Haven National Bank.

THE TRUST AND SAFE DEPOSIT CO., OF NEW HAVEN, was incorporated in 1895 with a capital of \$100,000. The company's vaults are located at 42 Church street, and are substantial and perfectly secure from burglary or fire. Patrons of this institution will find it equipped with all the conveniences usually found in houses in this line. Safes and special boxes for individual rental for the storage of stocks, bonds, or other valuables, can be had for reasonable prices. The firm have a large patronage. The officers are: T. Attwater Barnes, president; Thomas Hooker, vice-president; Fred. B. Bunnell, secretary and treasurer.

THE NEW HAVEN STEAMBOAT CO., of which Captain Richard Peck is the secretary and general local manager, has become one of the strongest transportation lines that ply on Long Island Sound. Ever since 1815, one or more steamboats have plied between New Haven and New York, and no one has had more experience or is better versed in the business than Captain Richard Peck. A handsome and palatial steamer, one of the finest on the sound, bears his name, and runs regularly on the line, carrying passengers and freight. The large steamer, "C. H. Northam," runs on alternate days with the "Richard Peck." The success which has attended this company is due largely to the thorough knowledge and years of experience of Mr. Peck, who not only knows all about the mechanism and speed of steamboats, but also has the right conception of the freight and passenger traffic.

FRANCIS G. BEACH, postmaster at the present time, is an able lawyer, and stands well among his brother members of the bar. As an attorney he has been connected with many important cases in which he has always shown good skill and judgment. As postmaster, the people of New Haven have no cause of complaint, as he has always administered the affairs of his office for the best interest of the community and the welfare of the government.

"STARIN'S" NEW HAVEN TRANSPORTATION LINE, of which Mr. Charles H. Fisher is the local agent, has built up a large traffic in passengers and freight between New Haven and New York. The steamers "John H. Starin" and "William C. Egerton" are the regular boats, plying on alternate days between these points. "Starin's" name, of Glen Island fame, is known all over, and is a sufficient guarantee that the public will be accommodated and patrons find courteous treatment. Mr. Fisher, the New Haven agent, is thoroughly versed in steamboat matters, and is always ready to impart information in relation to passengers, baggage or freight. His genial manners have made him popular with the public in general.

THE THOMAS F. AHERN CO. was incorporated in 1896 with a capital of \$19,000, for the manufacture of store and office fixtures. The firm do a large business in the production of fine fixtures for stores, bar-rooms, refrigerators and cabinet specialties. They also supply all kinds of metallic ceiling and side wall decorations. Their factory is located at 521 to 525 Grand avenue, where a line of drawings and samples are shown. The officers of the company are: president, John E. Healy; treasurer, Thomas F. Ahern; secretary, Daniel J. Hurley. They give employment to a large number of hands.

ELI WHITNEY, president of the New Haven Water Company, and a large capitalist, is one of New Haven's leading men, both financially and socially. He inherited his father's name, and like him has always remained an active and honored citizen, and to-day is prominent in the business interests his father founded, but which have been altered and improved to meet the demands of modern times. Mr. Whitney and others organized the New Haven Water Company, and it was largely by the efforts of the present head of the concern that a reconstruction of the plant was begun in 1860, and to-day New Haven rejoices in the fact that she has a model water supply, and that of the purest quality and a reasonable abundance, the summer resources being about one billion five hundred million gallons daily. The company owning and controlling this is incorporated with a capital of \$2,000,000. The present officers are: Eli Whitney, president and treasurer; secretary and vice-president, Ellsworth I. Foote; assistant-treasurer, Arthur F. Hemingway.

MORRIS F. TYLER, president of the Southern New England Telephone Company, ranks among the leading financial men of New Haven, and is well known both in commercial and social circles throughout the state. Mr. Tyler's management of the telephone system in Southern New England has met with general approval. The service has been greatly improved under his reign, and the patronage largely increased. Mr. Tyler is a director in the First National Bank of New Haven, besides being financially interested in other business enterprises. The Southern New England Telephone Company was incorporated in 1882, with a capital of \$2,000,000. The present officers are: president, Morris F. Tyler; vice-president, James English; secretary and treasurer, Andrew H. Embler; assistant-treasurer, Edwin N. Clarke; general superintendent, Ellis B. Baker.

ISRAEL A. KELSEY, secretary and treasurer and general manager of the Winchester Avenue Railway Company, is one of New Haven's energetic and active business men. The road of which he has the general management is well equipped, and fully equal to any of the contingent electric systems. Mr. Kelsey is a thorough and competent railroad man, has the esteem of his employees, and the fullest confidence of the public. He takes a deep interest in the plant he operates, and is alive to all chances for improvement, which he speedily inaugurates.

THE AMERICAN BOOK MACHINERY CO., incorporated in 1895, with a capital of \$10,000, are manufacturers of various kinds of book machinery which is fast becoming a prominent industry. The plant is located at 219 Water street, where quite a force of help is employed. The present officers of the company are: president, B. S. Lewis; secretary and treasurer, George A. Sanford.

THE NEW HAVEN CLOCK CO., manufacturers of clocks and movements of every description, is one of the oldest and the largest of its kind in this country. The industry was started in 1853. In 1856 they absorbed the Jerome Clock Company. They were the first manufacturers of clocks in quantities in this country, and as the demand increased the plant was enlarged from time to time until to-day, when the factory buildings cover two city squares and give employment to about one thousand hands. The company has kept abreast of the times and has been able to meet the demand for both cheap and expensive goods. They have paid special attention to designing clock cases in accordance with the modern styles of house furnishings. They produce every grade and style of clock known, excelling many of the foreign productions; they have also added electro-mechanical movements and telegraph supplies. Their products find a market in every civilized country in the world. The present officers of the company are: president and treasurer, S. A. Galpin; secretary and assistant treasurer, Walter Camp. The company is capitalized at half a million dollars.

SARGENT & CO., hardware manufacturers, Water, corner Wallace street, has always ranked among the largest manufacturing industries in New Haven, and to-day stands at the head of its line in this country. This company were the pioneers in the production of carriage hardware and soon became the largest in that line in the world. The firm have added other industries, which include a general line of builders', house-furnishing, cabinet and undertakers' hardware, locks, harness snaps, etc. Additions have been made to the plant from time to time, until the large buildings, well equipped with improved machinery, cover several acres of ground. The plant is the most complete in its line in the world. So many kinds of articles are made by this concern that a book of nearly one thousand pages is required for its catalogue. About two thousand operatives are employed, and the concern is one of the leading beneficiaries to the mercantile and laboring classes of the city.

The general office and warehouse is at 37 Chambers street, New York, from which point the bulk of the products are shipped. Their goods are sent to all parts of the world, and probably no firm or line of goods are better or more favorably known to the trade than that of Sargent & Company. The successful conduct of the vast business operations of this firm speaks volumes for the tact, executive ability and intelligence of the management. The present officers are: J. B. Sargent, president; H. B. Sargent, vice-president; Charles L. Baldwin, secretary; George L. Sargent, treasurer; H. B. Sargent, superintendent.

THE SAFETY AXLE CO., incorporated in 1893 with a capital of \$15,000, produce the steel-bearing axle, which is without doubt the best axle ever brought before the public. It will run from three to six weeks without lubricating, and it has received the endorsement of the leading carriage builders. By the use of steel bearings, the friction has been reduced to a point where the axle enters into competition with the ball-bearings. Attached to these axles is an adjustable nut which always renders the wheel noiseless. The present officers of the company are: R. H. Brown, president; W. H. Tilton, secretary and treasurer.

THE WINCHESTER REPEATING ARMS CO. is the largest industry in New Haven and is an outgrowth of one of the first enterprises to locate in the place. The manufacture of fire-arms was founded by Eli Whitney in 1798, and the industry was then known as The Whitney Arms Company. Mr. Whitney became one of the most famous manufacturers in the United States, brought about by the production of small fire-arms and the invention of the "Cotton Gin," which later revolutionized the cotton industry. The Winchester Arms Company was organized in 1858 and absorbed the Whitney Arms Company. The plant has been increased from time to time, and the substantial buildings cover two city squares, having a floor area of about nine acres. The works are the most complete of the kind in the world. All the latest machinery is operated and about fifteen hundred operatives are employed. The arms and ammunition of this concern are sold all over the world. The present officers of the company are: President, Thomas G. Bennett; vice-president, Arthur W. Hooper; treasurer, George E. Hodson; secretary, Aro I. Ward. The capital is \$1,000,000.

THE J. C. HUBINGER BROTHERS CO., starch manufacturers, 61 Minor street, is one of the important industries of New Haven. The firm was incorporated in 1888, with a capital of \$24,000. They operate an extensive plant on Minor street adjacent to the tracks of the New York, New Haven and Hartford Railroad, affording them ample facilities for receiving and shipping the raw and manufactured material. The company gives employment to a large complement of operatives and send their products all over the country. The goods they produce are well established in the

trade, having attained a high standard of excellence. The Hubinger brothers are thorough and practical business men and have a high standing in financial, business and social circles. The company is composed of John C., Nicholas W. and Joseph E. Hubinger. Mr. Jacob J. Hubinger is the foreman of the works and attends to the details connected with the factory.

THE ENGLISH & MERSICK COMPANY, importers, manufacturers and dealers in carriage goods, are an old-established concern and stand in high repute among the carriage trade especially. The business was established in 1860, and in 1895 a stock company was formed with a capital of \$20,000. The plant, which has been enlarged, is located on Crown street, where two large and substantial four-story brick buildings are occupied. The firm manufacture, import and deal in carriage goods of every description, including all the latest styles and novelties in carriage hardware and trimmings. Their products find a market all over the United States. The present officers are: President and treasurer, Edwin F. Mersick; vice-president, John B. Kennedy; secretary, Frederick T. Bradley.

THE B. & C. MANUFACTURING COMPANY was incorporated in 1894 with a capital of \$14,400, for the manufacture of infants' dresses, and the enterprise has assumed large proportions. The product of this concern finds a ready market. The officers at present are: President, W. A. Craig; secretary and treasurer, J. C. Hawley.

THE C. COWLES & COMPANY, manufacturers and dealers in carriage trimmings, located on Orange street, need no introduction to the trade, owing to their long standing and successful business career. The business was originally established in 1838 and has grown to be among the largest industries in its line in the country. The firm operate a large plant, which is supplied with improved machinery required in their business, and give employment to about 200 hands. They make a specialty of carriage and coach lamps, and gold, silver and nickel-plated carriage trimmings, and their products find a market all over the United States and Canada. The managers of the concern are well known and thorough business men and prominent both financially and socially in New Haven. The company was incorporated with a capital of \$125,000 in 1855. The present officers are: Frederick L. Cowles, president; Thomas T. Welles, treasurer; Louis C. Cowles, secretary.

THE C. G. CLARK COMPANY, proprietary medicine manufacturers, at 551 State street, are an incorporated company, with a capital of \$100,000. J. M. Marlin is the president and secretary.

THE MALLORY WHEELER COMPANY, hardware and lock manufacturers, foot of Green street, are the leading producers in the United States of door locks and latches, knobs, padlocks and bronze door furniture, and the concern is famous all over the world for the superior quality and elegant style of designs of their manufactures. The business was established in 1834, and the growth of the trade later necessitated an enlargement of the works. In 1884, a stock company under the above caption was formed, and additions to the plant made. The extensive works, which comprise over twenty buildings, cover nearly a city square in area, and are equipped with labor-saving machinery. The plant, on the whole, is a model of completeness and a credit to the city. The goods produced by this concern are well established in the trade all over the United States and Canada. The firm give employment to about five hundred hands. The establishment has an office and warehouse at 18 Murray street, New York. The present officers are: president, William H. Andrews; vice-president, Russell Hotchkiss; secretary and assistant treasurer, Frank H. Andrews.

THE B. SHONINGER COMPANY, manufacturers of pianos and organs, have a long-established and merited reputation in the musical trade. The standard excel-

lence of their organs and pianos has culminated in the attainment of a strong hold on the confidence of dealers and the public, which has placed them in the front rank in their line of business. The extensive works of this concern are located corner Chapel and Chestnut streets, and comprise several large and substantial buildings. The main structure is 300 x 150 feet, and six stories in height on Chestnut street, and 95 x 140 feet on Chapel street. The firm have ample facilities for the production of their instruments, and they have taken advantage of and adopted every known improvement of merit to place their products before the public among the leaders in their line. They are manufacturers, wholesale and retail dealers in high-grade grand and upright pianos, and have established warerooms in New Haven, New York and Chicago. The business was established in 1850, and in 1865 was incorporated with a capital of \$614,713. The present officers of the corporation are: president and treasurer, Bernard Shoninger; secretary, Simon B. Shoninger.

THE JOHN E. BASSETT & COMPANY, hardware and cutlery, manufacturers' and builders' supplies, 754 Chapel and 318 and 320 State street, is one of the oldest established dealers in their line in New Haven county. The business was established in 1784, and its history from that time on would fill an interesting volume. The present organization was incorporated in 1889, with a capital of \$20,000. The officers are: president and treasurer, George J. Bassett; secretary, Halsey W. Kelley; assistant treasurer, Edmund J. Silk.

THE NEW HAVEN MANUFACTURING COMPANY, located at No. 50 Whitney avenue, was organized in 1850. The capital of the concern is \$200,000. The company produce machine tools, and are well known among the manufacturers of the country. They operate a substantial factory plant, and employ about one hundred skilled workmen. The machines of various designs ordered, together with machine tools of every description, give entire satisfaction and show excellent workmanship. The officers at present are: Robert A. Brown, president, who is also treasurer of the New Haven Savings Bank; secretary and treasurer, Leslie Moulthrop; superintendent, Oscar E. Perrigo.

HENRY HOOKER & CO., carriage manufacturers, State street, are among the oldest, largest and best-known carriage builders in the country. The business was founded over fifty years ago, and the reputation of the firm is well established all over the Union. New Haven has always taken the lead in the carriage industry, and Henry Hooker stands at the head. The extensive works of this firm comprise several large buildings of substantial structure, covering an area of several acres of ground, and an average of three hundred workmen are employed. This house has led the fashion in this country for light vehicles of every description, and their output has been larger than that of any other concern. The present officers are: president, Edwin Marble; treasurer, Frank H. Hooker; secretary, N. Albert Hooker.

THE AMERICAN OPTICAL CO., manufacturers of photographic apparatus, 81 Day street, was incorporated in 1895 with a capital of \$125,000, and the concern has grown to be quite an important industry. The present officers of the company are: president, F. J. Kingsbury; secretary and general manager, Charles W. Dorland.

THE NEW HAVEN CHAIR CO. is quite a large and important industry of New Haven. The business now carried on by this company was originally established in 1858. In 1865 a stock corporation was formed with a capital of \$100,000, and the business under the above name has been successfully carried on since. The factory is located on Audubon street, where a large force of operatives are employed. The company manufacture folding and fancy chairs, patent rockers and invalid reclining and rolling chairs, which are made in great variety and design. The plant is well

equipped with modern machinery, and skilled labor is employed. The products of this concern are sent to all parts of the country, and are recognized as standard goods in this line. Their invalid chairs have been adopted by the United States government, and are in use in all of their hospitals. The firm have recently added a bicycle department to their works, and manufacture the "New Haven" wheel, which they claim is the easiest-riding bicycle made. With it average riders wheel twelve miles without fatigue. The present officers of the company are: president, Isaac N. Dann; secretary and treasurer, Edwin F. Mersick.

THE WEST HAVEN BUCKLE CO., manufacturers of clothing and suspender buckles, are pioneers in this line in New England. The business was established and incorporated in 1853 with a capital of \$17,000. The business has been carried on since the start with success, and the concern is well known to the trade all over the country. The factory plant is located in West Haven, where over one hundred hands are employed. Buckles of every size and form, for all kinds of garments and suspenders, are produced here. The present officers of the company are: president, Clarence E. Thompson; secretary, treasurer and agent, D. S. Thompson.

THE NATIONAL FOLDING BOX AND PAPER CO., incorporated in 1891, with a capital of \$1,250,000, manufacture all kinds and grades of folding paper-boxes which are now so much in use. They operate two factories, one at the corner of Bradley and William streets, and the other at 317 Congress avenue, and employ a large number of hands. The officers are: president, D. S. Walton; vice-president, T. L. Cornell; secretary, H. S. Munson; treasurer, F. H. Benton.

THE BOSTON BUCKBOARD & CARRIAGE CO., organized in 1879 with a capital of \$50,000, are engaged in a prosperous industry—the manufacture of all styles of light carriages, in which they have a noted reputation of producing first-class work. They operate a large factory on East street, and give employment to over one hundred hands. The present officers are: President, Edward E. Bradley; vice-president, James Graham; secretary and treasurer, W. E. Weld, Jr.

THE NEW ENGLAND MANUFACTURING CO., producers of jewelry and silver-ware cases of every description, operate a large factory on Temple street and employ about one hundred hands. The company was incorporated in 1886, with a capital of \$10,000. The officers are: President and treasurer, William W. Post; secretary, F. G. Jones.

THE NATIONAL PIPE BENDING CO., were incorporated in 1880, with a capital of \$100,000. The company are the sole manufacturers of the "National Feed Water Heaters," one of the most popular appliances in use for heating feed-water for boilers. The works of the company are located on River street. The present officers of the company are: President, Simeon J. Fox; treasurer, E. L. Fox; secretary, F. L. Bigelow.

THE WILLIAM SCHOLLHORN CO., Wooster street, corner of Wallace, was incorporated in 1891, with a capital of \$75,000. The concern manufacture a fine grade of scissors and shears of the "Star" brand, also the Bernard pliers and hardware specialties. Their products are well known to the trade and find a ready market. The present officers are: President, J. J. Henderson; vice-president, W. A. Bernard; secretary and treasurer, F. J. Schollhorn.

THE REYNOLDS & COMPANY, manufacturers of screws, bolts, nuts, etc., operate a large plant on East street, where they give employment to about one hundred hands. They produce about every variety of the above articles known to the trade. The company was incorporated in 1867, with a capital of \$28,000. The officers are: president, Henry Reynolds; secretary, W. H. Reynolds; treasurer, James English.

THE JAMES REYNOLDS MANUFACTURING COMPANY, incorporated in 1891 with a capital of \$10,000, operate a factory on Mill River street, where they are engaged in the production of moulding machines and special machinery, and in pattern-making. They employ a large force of skilled operatives. The present officers are : president, James Reynolds ; secretary and treasurer, Patrick O'Connor.

THE G. F. WARNER MANUFACTURING COMPANY, Iron founders, are located near the Cedar Hill station, and conduct a large business. They make a specialty of light grey iron castings. The company is a joint stock organization with a capital of \$25,000. The present officers are: President, Charles S. Leete; secretary and treasurer, Edgar E. Durant.

THE UNITED STATES HARDWARE COMPANY, 125 Water street, are manufacturers of every description of casket hardware. The concern and its products are well known in the trade. The company was incorporated in 1896 with a capital of \$20,000. The officers are: President, G. W. Wright; vice-president, H. C. Rich; secretary and treasurer, L. T. Law.

THE YALE SAFE & IRON COMPANY were incorporated in 1885, and conduct a large plant at West Haven. They manufacture vaults and all kinds of iron work for building purposes, both architectural and ornamental. They make a specialty of riveted girders, roofs and bridges, and employ a large force of workmen. The officers are: President and secretary, S. C. Johnson; treasurer, William Crossley.

THE AMERICAN FISH HOOK COMPANY, No. 11 Artisan street, is a concern of long standing and prosperity, and its products are well and favorably known. They produce all kinds of fish hooks, rapid tag-fasteners and hold-fast hooks. The capital stock of the company is \$42,125. The present officers are: Thomas Wallace, president; John A. Hull, secretary and treasurer.

THE BELDEN MACHINE COMPANY, 330-360 Congress avenue, are large and extensive manufacturers of drop forgings, dies and models, machine work, slaters' tools, rod-cutters, pipe-wrenches and other hardware specialties. The company was incorporated in 1888 with a capital of \$23,500. They are well established among the trade, and ship their products all over the country. The officers at present are: President and treasurer, R. A. Belden; secretary, E. M. Belden.

THE BAUMANN RUBBER Co., located on Congress avenue, are manufacturers of specialties in rubber balls, golf balls, balloons and all kinds of druggists' sundries. This concern has a large trade, and produces first-class articles. It was incorporated in 1891, with a capital of \$10,000. The officers are: President, Samuel Laudenbach; secretary and treasurer, Maurice Baumann.

THE EASTERN MACHINERY Co., incorporated in 1895, with a capital of \$30,000, operate a plant at Ashmun and Gregory streets. Their principal products are elevators, friction clutches and brick machinery, and they have a well-established trade. The present officers are: President, E. B. Beecher; treasurer, F. B. Farnsworth; secretary, J. Wharton Stone.

THE W. & E. T. FITCH Co., manufacturers of carriage springs, malleable iron castings and saddlery hardware, at 151 East street, were incorporated in 1893, with a capital of \$100,000. The firm do a large and profitable business, and employ a large number of skilled workmen. The present officers are: President and treasurer, John B. Fitch; secretary and assistant-treasurer, Frederick F. Brewster.

THE GLENDORA KNITTING Co., 87 Orange street, carry on the manufacture of hosiery on quite an extensive scale. The company was incorporated in 1895, with a capital of \$25,000. The present officers are: President, R. A. Brown; secretary and treasurer, F. S. Bradley.

THE GRAHAM MANUFACTURING Co., incorporated in 1893, with a capital of \$20,000, carry on the production of keys and locksmiths' supplies, which they turn out in great quantities. The company's factory is located in West Haven. The present officers are: President and treasurer, Eugene H. White; secretary, Howard D. Allen.

THE GRISWOLD KNITTING MACHINE Co., 68 Court street, are large manufacturers of knitting machinery of various kinds. The company was incorporated in 1891, with a capital of \$15,000. The present officers are: president, E. Henry Barnes; treasurer, George C. Pettis; secretary, H. J. Griswold.

THE GRILLEY Co., manufacturers of hardware specialties, are one of the best known concerns in their line in the country. The business was established and incorporated in 1866. The company make a specialty of the production of casket and saddlery hardware of all kinds, picture hooks, knobs, nails, wire, screws and screw-eyes. The firm and their products are well known and established with the trade throughout the United States. The present officers are: President, George H. Ford; treasurer, Leonard F. Morse; secretary, Frank E. Winchell.

THE HOGGSON & PETTIS MANUFACTURING Co., 64 to 70 Court street, is one of New Haven's important industries which has practically grown up with the place during the last half century. The business was established in 1849 and incorporated in 1883 with a capital of \$80,000. The company manufacture lathe chucks, bank punches, typewriting machines, special machinery, light hardware, cutting dies, ticket stamps, ticket punches, hand stamps, stencils and stencil supplies, etc., etc. The firm's trade extends to all parts of the country, and their reputation for first-class work is unsurpassed. The present officers of the company are: president, S. J. Hoggson; treasurer, G. C. Pettis; secretary, James A. Howarth.

THE HORTON PEN Co., incorporated in 1894 with a capital of \$16,500, carry on the manufacture of fountain pens and hand rubber novelties which are very popular with the trade. The present officers of the company are: President and treasurer, A. N. Wheeler; secretary and manager, A. H. Down.

THE MARLIN FIRE-ARMS Co., organized with a capital of \$200,000 for the manufacture of fire arms, occupy a factory plant on Willow street, corner Nicoll. They do a large business, shipping their products all over the world, and a large force of operatives are employed. The present officers are: President, Charles Daly; treasurer, J. M. Marlin; secretary, M. H. Marlin.

THE MATHUSHEK PIANO MANUFACTURING Co. was incorporated in 1866 with a capital of \$50,000. The factory plant is located at West Haven, where a large force of skilled workmen are employed. The reputation of the Mathushek piano is thoroughly established and their instruments find a ready market. The present officers of the company are: President and treasurer, Henry S. Parmelee; secretary, C. C. Buckingham.

THE MCLAGON FOUNDRY Co., 26 to 30 Audubon street, conduct a large business as iron founders, machinists, pattern makers, blacksmiths, etc.; also manufacture machine moulded pulleys, machinery and furnace castings, grate bars, etc. The company are incorporated with a capital of \$30,000. The present officers are: President and treasurer, F. B. Farnsworth; secretary, Harry B. Brown.

THE NATIONAL VARNISH Co., 195 Saltonstall avenue, are manufacturers of high grade varnishes, dryers, japans, etc. Their products are recognized as standard goods among the trade and the demand is increasing each year. The company was incorporated in 1891 with a capital of \$40,000. The present officers are: President, Edward A. Nichols; secretary and treasurer, Charles F. Bates; superintendent, Adam Seibert.

THE NEW HAVEN BRASS GOODS CO., 131 Park street, carry on the manufacture of upholsterers' hardware, which is quite an industry in itself, and the products of the concern find a ready market. The company was incorporated in 1891 with a capital of \$9,000. The present officers are: President, George M. Hotchkiss; secretary and manager, H. G. Hotchkiss; treasurer, F. M. Robinson.

THE NEW HAVEN CAR REGISTER CO. is one of New Haven's most thriving industries. They operate a factory plant at 218 George street. The company was incorporated in 1891 with a capital of \$25,000. The officers of the company at present are: President, Willis M. Anthony; vice-president, F. Coleman Boyd; secretary and treasurer, John S. Bradley.

THE NEW HAVEN ELEVATOR GUARD CO., who have an office at 42 Church street, was incorporated in 1894; capital, \$5,000. The present officers are: F. L. Cowles, president; F. C. Lum, secretary; Frank Seward, treasurer. The company produce registers for street railways and automatic vending machines.

THE NEW HAVEN CARRIAGE CO., manufacturers of fashionable carriages, stand among the substantial carriage builders of New Haven. The company was incorporated in 1891 with a capital of \$200,000. The large factory buildings occupied by them are located at the corner of Water and Franklin streets. The work produced by this concern is of high standard. The present officers are: President and treasurer, George F. Holcomb; vice-president, H. S. Holcomb; secretary, William H. Atwood.

THE NEW HAVEN GAS MACHINE CO., office, 105 George street, manufacture gas generating machines of all sizes, or capacity, for heating, lighting, fuel for cooking, and power for gas and steam engines. By using the machine gas, electricity can be generated in any quantity at little expense. The company was incorporated in 1896 with a capital of \$60,000. They operate a large factory at Westville. The officers at present are: President and general manager, John A. Enos; vice-president and superintendent, Frank A. Hutter; treasurer, Mason Hotchkiss.

THE NEW ENGLAND RUFFLE CO., manufacturers of ruffles, was incorporated in 1890 with a capital of \$4,000. The officers are: President, H. P. Shares; vice-president, Frank W. Tucker; secretary and treasurer, F. W. Austin.

THE NEW HAVEN ROLLING MILL CO., organized with a capital stock of \$135,000, are large manufacturers of nut, bolt and charcoal rods and bar iron. They operate a large plant at the foot of Wolcott street, and conduct a large business. The present officers of the company are: President and treasurer, Pierce N. Welch; assistant treasurer and agent, Frank E. Williams; secretary, E. S. Wheeler.

THE NEW HAVEN STEAM SPECIALTY COMPANY, 88 Court street, are large manufacturers of steam and hot water heating apparatus, for which they have a large trade. They make a specialty of boilers for warming by steam or hot water, automatic water feeders, "Gold" sheet iron radiators, and dryers for paper mills. The products of this concern are well known and popular with the trade. The present officers are: president, A. H. Buckingham; secretary and treasurer, George I. Scranton; general manager, S. Fred. Strong. The company was incorporated in 1896, with a capital of \$5,000.

THE NORTH HAVEN MANUFACTURING COMPANY, manufacturers of spoons, are a joint-stock organization, with a capital of \$18,000. They operate a plant at 127 Water street. Ezekiel C. Stoddard, one of New Haven's prominent capitalists, is the secretary and manager.

THE NEW HAVEN TOY, GAME AND NOVELTY COMPANY, 56 and 58 Brewster street, were incorporated in 1895, with a capital of \$25,000. They are large manu-

facturers of toys and games, and publishers of books. They are also inventors of numerous specialties, and their goods find a market in almost every state in the Union. The present officers are: President, John B. Davids; secretary and treasurer, Edward L. Mitchell.

THE NEW HAVEN WHEEL COMPANY are manufacturers of all kinds of vehicle wheels. The business was established in 1845 and incorporated in 1853. The firm are among the largest in their line in New England, and employ a large number of hands. They occupy a plant on York, Grove and Ashmun streets. They also produce the genuine Sarvin patent wheels which are so popular with the trade and carriage builders. They use the best of second growth Eastern hickory and white oak timber. They defy competition. The New Haven wheel is well known in the carriage trade throughout the United States, and is recognized as the standard. The present officers of the company are: President and treasurer, Edward E. Bradley; secretary, Erastus A. Doolittle.

THE NEW HAVEN WIRE MANUFACTURING CO., 256 Water street, is one of the large wire industries of New England. They are producers of wire of all sizes and grades. They are an old-established concern and well known in the trade. The present company was incorporated in 1890 with a capital of \$40,000. The officers at the present time are: President and general manager, E. S. Wheeler; secretary, James E. Wheeler; assistant treasurer, William E. Hitchcock.

THE YALE GAS STOVE CO., 73 and 75 Court street, was incorporated in 1890, with a capital of \$30,000. The firm are large producers of a great variety and style of gas stoves, which are popular with dealers and are well known to the trade. The company give employment to a large force of hands. The present officers are: President, F. L. Trowbridge; secretary, George W. Starr.

THE UNITED STATES COACH LAMP CO., 125 Water street, are producers of coach and carriage lamps of every variety and style. The company was incorporated in 1886, with a capital of \$15,000. The goods turned out by this company are second to none in the trade. O. W. Swift is president, and Lyman T. Law secretary and treasurer.

THE ATLAS MANUFACTURING CO. are quite extensive manufacturers of wire and sheet-metal specialties. The factory plant is located at 127 Water street. The company was incorporated in 1891, with a capital of \$5,000. The present officers are: President, L. E. Osborn; secretary and treasurer, H. L. Bradley.

THE BARNES MANUFACTURING CO., manufacturers of fine flat-key night latches, store-door, pad and drawer locks, etc., are one of the progressive industries of New Haven. They are a joint-stock company with a capital of \$10,000. The factory plant is located at 103 Court street, and the office at 424 State street. The present officers are: President, C. S. Hamilton; secretary and treasurer, A. C. Barnes; superintendent, J. H. Woolaston.

THE BRADLEY-SMITH CO., 96 to 104 State street, is one of the largest manufacturers and wholesale dealers of confectionery and cigars in the state. They are the sole agents for the "M. C. A." and "108" cigars, which are so popular with the trade. They ship goods to all parts of New England, and the firm have an enviable reputation. The company was incorporated in 1892 with a capital of \$30,000. The officers at present are: President, Andrew R. Bradley; vice-president, Theodore R. Blakeslee; secretary and treasurer, George P. Smith.

THE BRADLEY, DANN & CARRINGTON CO., 406 and 408 State street, are extensive dealers in hardware, house furnishings, fancy and plain wooden ware, etc. They also make a specialty of, and carry at all seasons, a large and complete assortment of

agricultural tools and machines, and dairy implements. The firm are well known throughout New Haven county and have an extensive trade. The large warehouse of the firm is located at 406 to 408 State street and 102 to 106 Court street. The stock is complete and one of the largest in the line in the city. The company was incorporated in 1892 with a capital of \$36,000. The officers at present are : President, G. Halstead Bishop ; secretary and treasurer, Ernest L. Isbell.

THE BOWDITCH FURNITURE CO., 100 to 106 Orange street, is one of the oldest, largest and lowest-priced furniture houses in the state. The business was established in 1824, and incorporated under the above name in 1884. The capital stock is \$24,000. They manufacture and deal in rich and plain furniture of all kinds, of which they carry a large and complete stock. The house is one of the most popular in its line in the city. The present officers of the company are : President, Francis E. Hunn ; vice-president, Edwin B. Bowditch ; secretary and treasurer, George W. Crane.

THE BROCKETT & TUTTLE CO., incorporated in 1881 with a capital of \$50,000, are extensive manufacturers of fine light carriages of every description. They occupy a large factory plant on Goffe street. This concern has attained an excellent reputation for first-class work and has introduced some very artistic designs in vehicles, which have become very popular. The present officers are : President, Milo D. Tuttle ; treasurer, Pelham Hague ; secretary, H. B. Harrison.

THE CHARTER OAK BRICK CO., who have an office at 23½ Church street, are large manufacturers of pallet and common brick, which find a market all over New England. The company was incorporated in 1895 with a capital of \$35,000. The present officers are : President, John E. Healy ; secretary, Daniel Colwell ; treasurer, Peter McQuaid.

THE CROSBY & BECKLEY CO. are manufacturers and wholesale dealers in hard-wood lumber, making specialties in oak, ash, white-wood, cherry, maple, walnut, basswood, etc. They are incorporated with a capital of \$40,000. Their trade extends all over New England. The present officers are : President and treasurer, E. A. Beckley ; secretary, R. L. Walkley. Their main office is in the First National Bank building, Church street.

THE CONNECTICUT PIPE MANUFACTURING CO. is one of the largest manufacturers of water and gas iron pipes in New England. The concern is well known and has an excellent reputation for good work. Their product is sent all over the country. The factory is located at West Haven. The company was incorporated in 1892 with a capital of \$30,000. The officers at present are as follows : President and treasurer, Edward H. Phipps ; secretary, George O. Richards ; manager, Charles Ward.

THE CONNECTICUT ELECTRICAL CO., 25 Center street, incorporated in 1894, with a capital of \$10,000, are practical electrical engineers and contractors. They carry a full line of electrical supplies and take contracts for wiring for incandescent electric lighting, and do electrical construction of all kinds. They make a specialty of isolated electric-light plants, dynamos, motors and storage batteries. They operate a factory at 65 Orange street and keep a force of skilled workmen constantly employed. The officers at the present time are : President, W. F. Gale ; vice-president, T. J. Atkins ; secretary and treasurer, D. E. Manson ; manager, D. F. Foote.

THE E. A. CHATFIELD CO., 228 to 280 West Boulevard, are manufacturers of stiff mud, hand-made, repressed front and fire-place brick, in Pompeian, old gold, buff, and spotted patterns, also fire-brick and tile of all kinds, hard plasters, and masons' materials of all kinds, vitrified sewer pipe and wall-coping. The output of

this company is sold in every direction, and is of standard popularity. The company was incorporated in 1890, with a capital of \$57,000. The officers at present are as follows: President, George A. Pickett; secretary, Arthur F. Howard; treasurer and superintendent, Harold M. Howard.

THE CHATFIELD PAPER CO., incorporated in 1895, with a capital of \$30,000, carry on an extensive trade in all kinds of paper, such as manilla, hardware, building and roofing paper, also book, news and fine papers and twines. This firm, who are well and favorably known to the trade and public in New Haven and vicinity, maintain warerooms at 298, 300 and 302 State street. The present officers are as follows: President, Minotte E. Chatfield; secretary and treasurer, William B. Shaffer.

THE ELM CITY BRASS CO., 65 Orange street, are designers and manufacturers of brass fire-place fixtures, ornamental brass and bronze work of great variety. They also make a specialty of refinishing brass and plated goods. They were incorporated, with a capital of \$10,000, in 1895. The present officers of the concern are as follows: President and treasurer, T. W. Corbett; secretary, Frederic Ives.

THE EASTERN CHAIR CO. were incorporated, with a capital of \$24,000, in 1890. The concern are large contractors and manufacturers of all styles of cane-seated chairs. The present officers are: President, Willis E. Miller; secretary, John Vischer; treasurer, Charles E. Brown.

THE KICKAPOO INDIAN MEDICINE COMPANY, 441 Chapel street, is, without doubt, one of the best known of New Haven's numerous industries. The products of this concern are well established and find a market all over the world, as their testimonials are from every quarter. The company was incorporated with a capital of \$72,000, in 1895. The present officers of the company are: President, Charles Bigelow; treasurer, James K. Averill; secretary, Champion B. Swift.

JOHN ADT & SON, F. B. Shuster, proprietor, corner State and Mill River streets, is one of the best-known business concerns in New Haven, having been in active operation since 1866. The concern are large manufacturers of machinery of various kinds, among which are automatic wire-straightening and cutting machines, also machines for straightening and cutting sheet metal, riveting, butt milling and drilling machines, and machinery and tools for the manufacture of hardware, bicycles, sheet metal, saddlery and wire goods, wire and sheet metal forming machinery, blanking, drawing and combination dies, sub-press, drop and forming dies and tools, and in fact tools of the most improved pattern for all kinds of manufacture. Estimates are furnished for the manufacture of sheet-metal goods requiring blanking, drawing, stamping, polishing, plating and japanning. This concern has an extended trade and supplies work of superior quality.

THE STAR MANUFACTURING COMPANY, incorporated in 1888 with a capital of \$15,000, are producers of brass specialties in great variety. The present officers are: President and treasurer, H. P. Downes; secretary, R. G. Christie.

STEVENS & SACKETT, 129 and 131 Union street, are large manufacturers of coach, rockaway and dash lamps, curtain rollers, hub and nut caps, etc. They also do jobbing in spinning metals and ornamental glass cutting. They employ a large complement of skilled workmen and have an extended trade. The firm is composed of Evelyn Stevens and George W. Sackett.

MACKENZIE & MACARTHUR, 61 to 65 Orange street, are manufacturers of and dealers in elevators, shafting, hangers, pulleys and mill supplies, steam engines, friction clutches, patent wood-split pulleys and rope transmissions, belting, etc., also the Otto gas engine and dumb waiters. They make a specialty of millwright work and machine jibbing. The firm is composed of George M. MacKenzie and Duncan MacArthur.

THE MCWILLIAM & ARTHUR COMPANY, 82 Water street, was incorporated in 1896 with a capital of \$10,000. The firm carry on a general carpenter and building business in New Haven and vicinity. The present officers are: President, Alexander McWilliam; secretary and treasurer, Frederick W. Arthur.

THE BARNES TOOL CO., 958 to 962 Grand avenue, and 181 to 185 St. John street, are large manufacturers of self-folding hand-sawing machines and match machinery, brass tubular steering-wheels, plumbers' tools, etc. The products of this firm require skilled workmen, of which a large force is constantly employed. The concern is well known to the trade.

THE BEATTY STARCH CO., 215 Water street, was incorporated in 1886, with a capital of \$7,000. They are manufacturers of starch, which they produce in large quantities. The present officers of the company are: President, E. G. Stoddard; treasurer, A. H. Kimberley; secretary, C. B. Gilbert.

A. S. HENN & CO., 11 Artisan street, are manufacturers of patent gas-cock and torch, variety and special light hardware; also carry on plain and ornamental metal pattern-making.

THE KILBORN & BISHOP CO., corner Lloyd and River streets, are large manufacturers of drop-forgings. They guarantee the quality of work to be of high grade, which alone is sufficient. The present officers are: President, G. A. Kilborn; secretary and treasurer, E. R. Bishop. The company was incorporated in 1896, with a capital of \$15,000.

THE KELSEY ELECTRIC RAILWAY SPECIALTY CO. are quite extensive manufacturers of electric railway specialties at 67 Lloyd street, where a force of skilled workmen are employed. The products of the concern find a market all over the world. The company was incorporated in 1895, with a capital of \$20,000. The officers at present are: President, Frank N. Kelsey; secretary and treasurer, W. W. Miner.

THE BISHOP BOX & PASTE CO., 13 to 25 Oak street, was incorporated in 1891, with a capital of \$5,000. The company are manufacturers of paper boxes of every style and description, from a cheap match-box to a fine sample-case. They also produce the celebrated "Diamond B" patent steam paste and the Elm City carriage-top dressing. The present officers are: President and treasurer, Charles R. Bishop; secretary, John L. Benton; superintendent, J. C. Twining.

THE ATHLOPHORUS CO., 262 Whalley avenue, are manufacturers of patent medicines, and their products have a wide market. They were incorporated in 1891, with a capital of \$10,000. The present officers are: President, E. N. Searles; secretary and treasurer, W. H. Miller.

THE W. HASKELL KING CO., 65 Orange street, are manufacturers of hardware specialties of various kinds. The company was incorporated in 1891, with a capital of \$10,000. The present officers are: President, W. Haskell King; secretary and treasurer, Charles A. Chamberlain.

THE LAVIGNE & SCOTT MANUFACTURING CO., 161 River street, were incorporated in 1892 with a capital of \$30,000. They are producers of hardware and special machinery, in which line they carry on quite a large business. The officers of the company at present are: President, Joseph P. Lavigne; vice-president, William W. Scott; secretary and treasurer, Wilbur F. Day, Jr.

THE METROPOLIS MANUFACTURING CO., incorporated in 1892 with a capital of \$25,000, make a specialty of the manufacture of rattan chairs, which are sold all over New England. The main office and factory is located at 25 Elm street. The company have established branch offices at Bridgeport, Meriden and Waterbury in Connecticut, and Providence, R. I. The officers at the present time are: Caleb A. Morse, president; William H. Goodrich, secretary and treasurer.

JOSEPH PARKER & SON CO. was incorporated in 1892. The company are large manufacturers of blotting-paper, for which they find a ready market. The mill is located at Westville, and the office and warerooms at 27 Elm street. The present officers are: President, Joseph Parker; vice-president, James M. Townsend; treasurer, S. Frank Chamberlain; general manager, Robert A. France.

THE JAMES PENDERGAST CO., 66 Wallace street, are large manufacturers of coach steps, which is quite an industry of itself. This concern has dealings with coach-builders all over the United States. This company was incorporated in 1892 with a capital of \$10,000. The following are the officers at the present time: President and treasurer, James Pendergast; secretary, Robert Fitzmorris.

THE QUINNIPIAC BRICK CO., capitalized at \$16,000, and incorporated in 1873, are manufacturers of brick, ornamental and plain, and tile. Samuel P. Crafts is president and treasurer. The office of the company is at 68 Centre street.

THE SCOVILLE & PECK CO. were incorporated in 1894; capital, \$5,000. The company manufacture coach-lamps, glass-benders and bevelers, at 379 Chapel street. They have an extensive trade with carriage-builders in all sections. The present officers are: President, S. L. Brown; treasurer and manager, Edward E. Peck.

THE SEABROOK & SMITH CARRIAGE CO., 128 and 130 Park street, are among the largest carriage-builders in New Haven. They have an excellent reputation for fine work and artistic styles. They send their work all over the country. The company was incorporated in 1895 with a capital of \$50,000. The present officers are: President, Henry C. Seabrook; secretary and treasurer, Lyman T. Smith; vice-president, J. Henry Moore.

THE SEAMLESS RUBBER CO., 55 Daggett street, are capitalized at \$100,000. The concern manufactures a variety of articles in soft rubber, which find a ready market. The present officers are: President, George A. Alden, Boston; secretary and treasurer, Sherman F. Foote.

THE M. SEWARD & SON CO., 114 Bristol street, are manufacturers of almost every variety of carriage hardware, for which they find a large market among the local carriage builders. The company are well known in their line of business. They were incorporated with a capital of \$100,000 in 1891. Following are the officers at the present time: President, Frank Seward; secretary, Christopher E. Prince; treasurer, George E. Hodson.

THE W. A. BECKLEY CO., 167 Water street, are among the large lumber dealers of western Connecticut. They carry a large stock of timber, rough and dressed lumber of all kinds, mouldings, casings, hard wood, etc., etc. The company was incorporated in 1893 with a capital of \$40,000. The present officers are; President, Frank A. Beckley; secretary and treasurer, Charles B. Foote; manager, Louis A. Lampson.

THE MINER & PECK MANUFACTURING CO., office, 49 Church street, are the sole manufacturers of "Peck's" patent drop-presses and drop-lifters, friction drop-hammers, blast forges, etc. The firm have an extensive trade, and their reputation among the trade is of the best. The individual members of the firm are William W. Miner, George W. and S. Peck.

HERRICK & COWELL, 39 Artisan street, conduct the business of machine manufacture to a large extent. They are an old-established firm and are well known among the manufacturing trade. Their specialties are emery grinding machinery, hardware, electrotypes, paper box and match machinery. Their work is of the highest style of the art and of the latest designs. The firm is composed of Lewis Herrick and William G. Cowell.

A. OCHSNER & SON, 187 St. John street, machinists and manufacturers, have long been identified in the manufacturing interests of New Haven. The business with which they are connected was founded in 1876. Being practical machinists they soon built up a good and substantial business. Their specialties are coach and carriage locks to accommodate all styles and sizes of jobs, carriage body-makers' tools, and rotary ceiling fans. The firm are well known in the trade and their products are sent all over the United States. The firm is composed of Anton and Robert Ochsner.

THE AUDUBON MACHINE WORKS, 31 to 41 Whitney avenue, are extensive manufacturers and dealers in engines and machinery, both new and second-hand. The concern have superior facilities for a wide range of work in all departments. They build machinery, either light or heavy, to order, develop and perfect experimental work, make drawings, patterns, castings, forgings, etc. The ideas, plans and interests of their customers are protected. The company have a high standing in business circles and are well known among the trade.

THE GLOBE SILK WORKS, Marvin & Pardee, 578 to 590 State street, is an industry of no small moment to the business interests of New Haven. The enterprise, which consists of the manufacture of machine twists and sewing silks of every description, was first organized in 1878 in rather a crude form, but it has continued to grow until it has now attained a prominent place among the industries of New Haven. The firm produce all kinds of machine twists, sewing silk, floss, tram, embroideries, silk braids, and spun silk. A speciality is made of the peculiar twists used by boot and shoe and clothing manufacturers; and in these particular lines their products are everywhere recognized as the standard. The firm's factory plant is well equipped with all the latest and improved machinery, and their facilities for their work are of the best for the production of a superior article in quantities sufficient to meet the demand. The firm dye their own raw material, and consequently are able to guarantee the standard of color. They give employment to about one hundred operatives. The products of this concern are well established with the trade, and they find a ready market throughout the United States.

M. ARMSTRONG & CO., carriage manufacturers, 433 Chapel street, is one of the old-established concerns in the carriage trade of New Haven. The business was first established in 1859. The firm soon got a solid foothold in the trade, and have since continued a successful business. The firm produce the heavier grades of work, such as coaches, landaus, coupés, broughams, victorias, cabriolets, hansom cabs, etc., etc. Their work is of a superior grade of excellence and of high standard. The repository connected with their factory is well stocked with a large assortment of their products. Their trade extends to all parts of the country, which speaks well for their work.

SAMUEL K. PAGE, successor to Henry Hale & Co., 60 to 62 Franklin street, carries on an extensive business in the carriage manufacture, and still maintains the large trade and high reputation enjoyed by the old house of Hale & Co. Mr. Page is engaged in the production of all the leading styles of vehicles, including rockaways, cabriolets, victorias, four-and-six-seated rockaways, broughams, coupés, coaches, coupélets, landaulets and landaus. The work turned out at this factory will bear the closest inspection, and as for durability, style of design, and artistic workmanship, the concern has no superior.

THE DANN BROTHERS & COMPANY, manufacturers of carriage woodwork, 80 to 86 Franklin street, is the oldest established house in this field of work in New Haven. The business was first established in 1858. In 1870, a corporation was formed with a

capital of \$40,000, under the above caption. This company is one of the largest manufacturers of bent woodwork for carriages in the eastern states, if not in this country. The output of the concern is principally carriage bodies and seats, carriage parts, wood and banded hubs, patent wheels, etc. The best of seasoned stock is used in their work, and the company have every facility for producing everything used in carriage woodwork. They are well known in the carriage trade of this country, and their products find a market in all directions.

THE I. L. STILES & SON BRICK COMPANY are perhaps the largest brick producers in the state. They make pressed, pallet and common brick, for which they find a market all over New England. The company was incorporated in 1892. The officers at present are: President and treasurer, Frank L. Stiles, who is also president of the Central New England Brick Exchange Company; vice-president and secretary, E. G. Stoddard.

THE M. STEINERT & SONS CO., 777 Chapel street, are probably the largest piano dealers in the state. They operate stores and showrooms in eight of the largest cities in New England, and are well and favorably known in the trade and musical world. The company was incorporated in 1891, with a capital of \$100,000. They are general agents for New England of the leading piano-makers, such as Steinway & Son, Ernest Gabler & Bro., and Hardman. The present officers are: President, Alexander Steinert; secretary and treasurer, Morris Steinert.

THE STRONG FIRE ARMS CO., 83 Court street, L. T. Snow, proprietor, manufacture fine bronze cannon, breech and muzzle-loading, mounted on yacht or field carriages, for signal and salute purposes. Hardware specialties and machine jobbing are also among their productions.

THE NEW HAVEN BUTTON CO., Frank A. Whiting, proprietor, manufacture covered buttons and nails of every description, and novelties in metal goods. The factory is located at 698 to 702 Chapel street, where a complement of operatives is employed. The concern have quite an extensive trade among carriage-builders and upholsterers, by whom large quantities of covered buttons and nails are used.

O. B. NORTH & CO., 67 Franklin street, is a firm of long standing in the business interests of New Haven, and is probably as well and favorably known as any other in the field. Saddlery and carriage hardware, malleable iron castings and patent carriage-tops are the leading products of this firm. Their trade in this line is scattered over a wide field.

J. F. GOODRICH & CO., carriage-builders, 103 to 148 East street, manufacture light carriages of all descriptions, village carts being one of the leading specialties. They also turn out a variety of heavy work, including landaulets, coupélets, landaus, coupés, broughams, victorias, bretts, T carts and rockaways. All work is strictly first-class both in construction, style and finish, for which the firm has always borne a merited reputation. Their New York repository, at 684 Broadway, is always well stocked with a complete assortment of their work, which shows to good advantage. The firm's trade extends all over the country. The members of the firm are Joseph F. Goodrich and Albert W. Adams, both men of high financial and social standing.

S. E. MERWIN & SON, 426 State street, packers and wholesale dealers in provisions, is probably the oldest establishment in its line in the state. The business was founded in 1851, and, in the years that followed, the house has gained a reputation second to none in their line. Their productions are noted far and near as standard articles. The "Elm City" hams, shoulders and bacon cured by them have no superior in the market, and are always in great demand. Great care has always been taken in selecting and curing their salted meats; they are always uniform, and can

be relied upon. The business is conducted by George M. Beers and Henry M. Osborn, both men of wide experience and business ability.

EDWARD F. SMITH, wire-goods manufacturer, 23 to 29 Centre street, produces some fine, artistic metal-work in brass, wrought iron and wire, bank and office-railings, window-guards, spark-guards and fenders; also wire-cloths in brass, copper, galvanized and iron-wire. The work done by this house is first-class in every detail, and patrons of the firm are scattered all over the state.

COE & BROWN, curriers and leather manufacturers, 202 and 204 George street, manufacture pure oak-tanned leather belting. They make a specialty of endless belts and leather for polishing purposes; also curriers' superior oak-tanned harness leather. The firm consists of William Harris Brown, Julius C. Coe, and Rollin W. Coe.

JULIUS WAAS, machinist and iron-worker, factory 41 Judson avenue. This concern turns out all kinds of iron work for building, iron hitching-posts, tree-guards, iron pipe-railing and fences, iron fire-proof doors and shutters, trap-doors and fire-escapes. Estimates are given on all work.

GEORGE H. SIMMONS, 319 Sherman avenue, manufactures all kinds of electrical goods, including burglar alarms, call bells for every purpose, gas-lighting, fire alarm and telephone, also speaking tubes, electric dials, electric lighting and watchmen's clocks and electric goods of every description.

THE D. C. BEARDSLEY Co., cabinet makers and wood turners, 85 Water street, are large manufacturers of store and office fixtures, counters, railings, desks and all manner of interior hard-wood trimmings, hard-wood mantels, veneered doors, sash, blinds, sideboards, bookcases, cabinets and wood packing-boxes. The firm operate a well-equipped factory and employ a large force of operatives.

HOBART E. SMITH, machinist, 29 to 35 Artisan street, carries on the manufacture of shafting, pulleys and hangers, and general machine jobbing. He is also agent for the Fulton wood-split pulley. Mr. Smith is a practical machinist, and the work which passes through his hands will be sure to give entire satisfaction.

THE NEW HAVEN ELECTRO-CHEMICAL AND ART PLATING Co., 90 Water street, are manufacturers of patented ready-metal compositions in dry form for all kinds of plating solutions, also batteries for the same, and art plating works. They do re-plating of all kinds of art or special articles. The firm is composed of John Buechler and Edward Poppowitsch. The former holds the office of president, and the latter is the manager.

THE H. H. RICHARDS LUMBER Co., incorporated in 1893, are large dealers in lumber, timber, etc., of which they keep a carefully selected stock for general building purposes. They are also prepared to do all kinds of mill work at short notice. The capital stock of the company is \$10,000. The present officers are: President, Benjamin F. Richards; vice-president, George O. Richards; treasurer, Edward A. Richards; secretary, A. Seibold.

THE TREAT & SHEPARD Co., incorporated in 1887 with a capital of \$50,000, is one of the largest importers, wholesale and retail music houses in the state. They are located at 849 Chapel street, where everything in the line of musical instruments, sheet music, etc., can be obtained. The officers at present are: John L. Treat, president and treasurer; Thomas G. Shepard, secretary.

NELSON W. TWISS, engine builder, 28 Whitney avenue, is a practical machinist and engine builder and is well known in his line of business. He manufactures the "Twiss" improved automatic cut-off engine, also vertical and compound marine engines. He also carries on a general machine jobbing.

THE MARINE ENGINEERING Co., 7 to 25 Water street, West Haven, carry on the

business of designing and building steam yachts, launches, compound and triple expansion marine engines, high-pressure safety water-tube boilers. They also make a specialty in repairing vessel hulls and machinery, together with general jobbing and repairing. The company were incorporated in 1895 with a capital of \$20,000. The present officers are : President, Merritt W. Burwell ; secretary and manager, Frederick D. Butricks ; treasurer, C. F. Mix.

BUCKINGHAM, CLARK & JACKSON, 294 to 298 State street, are wholesale hardware merchants and manufacturers' agents in mill supplies, cut and wire nails, etc. They are selling agents for the American Screw Company, Electric Cutlery Company, Clinton Cloth Company, Cortland Door and Window Screen Company, "Nutmeg" Lawn Mower, Monarch Cycle Company, "Black Diamond" Files, etc., etc. The firm is composed of William W. Buckingham, Arthur H. Jackson and Joseph W. Jamieson. They are all men of experience in the trade, and active, shrewd business men, and are popular with both the trade and patrons.

In addition to the above are the following joint-stock corporations doing business in New Haven, which are of more or less magnitude and importance :

THE AMERICAN OYSTER CO., 291 State street, wholesale dealers in oysters ; incorporated in 1890 ; capital, \$30,000. President, Frank L. Homan ; vice-president, J. Frank Homan ; secretary, S. M. M. Smith ; treasurer, Henry E. Marsh.

THE ARNOLD CO., 236 to 240 State street, stoves, plumbing, etc. Incorporated in 1892 ; capital, \$20,000. President, F. M. Wilmot ; secretary and treasurer, R. W. Meigs.

THE ARTHUR H. BARNES CO., 159 Church street, druggists. Incorporated in 1895 ; capital, \$10,000. President, Hobart B. Ives ; secretary and treasurer, Arthur H. Barnes.

THE BENEDICT & PARDEE CO., 98 Meadow street, wholesale coal dealers. Incorporated in 1895 ; capital, \$50,000. President and treasurer, Henry H. Benedict ; vice-president, F. W. Pardee ; secretary, R. E. Manross.

THE E. C. BENNETT CO., 156 and 158 Orange street, bicycles and rubber goods. Incorporated in 1892 ; capital, \$15,000. President, Ernest C. Bennett ; treasurer, George A. Saunders ; secretary, William H. Andrews.

THE BUCKINGHAM & ROUTH CO., 79 to 83 Court street, plumbing, heating and galvanized iron work. Incorporated in 1896 ; capital, \$5,000. President, Alfred H. Buckingham ; treasurer, Thomas L. Routh ; secretary, Arthur R. Thorpe.

THE BURGESS FUR & HAT CO., 749 and 751 Chapel street, hatters and furriers. Incorporated in 1894 ; capital, \$10,000. President, Justin E. Burgess ; treasurer, Henry B. Burgess ; secretary, Fred. M. Burgess.

THE N. T. BUSHNELL CO., 712 Chapel street, hardware, cutlery, etc. Incorporated in 1892 ; capital, \$30,000. President, Nathan T. Bushnell ; secretary and treasurer, William H. Burchell.

THE CHAMBERLAIN FURNITURE AND MANTEL CO., 50 Orange street, furniture dealers. Incorporated in 1894 ; capital, \$30,000. President, George R. Chamberlain ; secretary and treasurer, William M. Parsons.

THE COLOPHITE MANUFACTURING CO., rear 440 Elm street, manufacturers of insulations, enamels and lacquers. Incorporated in 1894 ; capital, \$50,000. President, S. J. Hoggson ; secretary, W. W. Miner ; treasurer, C. H. Bird.

THE CONNECTICUT TELEGRAPH CO.—Incorporated in 1867 ; capital, \$35,000. President, Morris F. Tyler ; secretary, A. H. Embler ; treasurer, E. N. Clark.

THE CORNELL PAPER CO., 840 Chapel street, manufacturers of folding box paper. Incorporated in 1895 ; capital, \$10,000. President, E. Shelton Cornell ; secretary and treasurer, Edmund Zacher.

THE DEFOREST & HOTCHKISS Co., lumber dealers, 115 Water street. Incorporated with a capital of \$25,000. President, Andrew W. DeForest; vice-president and secretary, Charles S. DeForest; treasurer, Eugene DeForest.

THE DIAMOND STARCH Co., starch manufacturers, 139 Temple street. Incorporated in 1889; capital, \$10,000. President, J. B. Robertson; secretary and treasurer, W. J. Peck.

THE B. H. DOUGLASS & SONS Co., wholesale confectionery and cigars, 26 Crown street. Incorporated in 1896; capital, \$35,000. President, B. H. Douglass; treasurer, R. H. Douglass; secretary, John F. Douglass.

THE DOUGLASS LUMBER Co., office 42 Church street. Incorporated 1893; capital, \$21,000. President and treasurer, E. A. Beckley; secretary, W. B. Beckley; general manager, N. E. Douglass.

THE JOHN T. DOYLE Co., proprietors of Bo-Kas-Ka and Welcome Starch, 383 Chapel street. Incorporated in 1894; capital, \$10,000. President, John T. Doyle; secretary and treasurer, John J. Fitzgerald.

THE EMPIRE MEDICAL Co., manufacturers of patent medicines, 291 State street. Incorporated in 1896; capital, \$25,000. President, M. A. Penny; treasurer, J. A. Crocker; secretary, V. E. Keeler.

THE EMPIRE TRANSPORTATION Co., office, Water street corner East street. Capital, \$200,000. President and treasurer, George B. Martin; secretary, Henry R. Heath.

THE EVERIT HORSE REMEDY Co., 533 Grand avenue. Incorporated in 1890; capital, \$20,000. President, W. L. Everit; secretary and treasurer, F. A. Betts.

THE EZRA D. FOGG Co., wholesale lumber, 87 Church street. Incorporated in 1886; capital, \$20,000. President and treasurer, Ezra D. Fogg; secretary, John W. Holton.

THE GIBBONS PLATE Co., office 179 Church street. Incorporated in 1892; capital, \$10,000. President, John K. Beach; secretary and treasurer, Francis G. Beach.

THE LEVI C. GILBERT Co., coal dealers, 89 Church street. Incorporated in 1891; capital, \$40,000. President, William H. Sage; secretary and treasurer, Levi C. Gilbert.

THE S. GOODMAN Co., jewelers, 748 Chapel street. Incorporated in 1895; capital, \$10,000. President, J. Johnson; treasurer, Samuel Goodman.

THE GEORGE M. GRANT Co., mason builders, 133 Union street. Incorporated in 1894; capital, \$25,000. President, George M. Grant; vice-president, Wilbur F. Gillette; secretary and treasurer, Frederick Chatfield.

THE HALSTEAD & HARMOUNT Co., lumber, etc., 78 to 86 Water street. Incorporated in 1895; capital, \$50,000. President and treasurer, A. J. Harmount; secretary, William B. Beckley.

THE HANAN-DILLON SHOE Co., 86 Church street. Incorporated in 1894; capital, \$10,000. President, John H. Hanan; secretary and treasurer, B. J. Dillon.

THE G. W. HAZEL Co., stoves, etc., 11 and 13 Church street. Incorporated in 1894; capital, \$15,000. President, William H. Hazel; secretary and treasurer, Francis Hazel.

THE HUMISTON PRESERVATIVE Co., manufacturers of food preservatives, 139 Park street. Capital, \$25,000. President and treasurer, Nathan Easterbrook, Jr.; secretary, Henry D. Humiston.

THE HYGEIA ICE Co., 881 State street. Capital, \$125,000. President, Willis E. Miller; treasurer, Frank H. Hooker; secretary, F. H. Snell.

THE E. LARKINS & SONS Co., carpenters and builders, 437 Elm street. Incorporated in 1891; capital, \$12,100. President, Elihu Larkins; secretary and treasurer, Walter H. Larkins.

MCDONALD & RANSOM Co., livery stable, 152 to 160 Court street. Incorporated in 1892; capital, \$30,000. President, H. C. Ransom; treasurer, J. H. McDonald; secretary, A. H. Kimberly.

THE C. H. MILLER Co., billiard tables, 174 Crown street. Incorporated in 1895; capital, \$15,000. President, C. H. Miller; vice-president, E. H. Miller; secretary and treasurer, F. W. Auch.

THE MORGAN & HUMISTON Co., doors, sash and blinds, 142 and 144 State street. Incorporated in 1885; capital, \$10,000. President, Frederick J. Morgan; secretary, David F. Wiser; treasurer, W. E. Dickerman.

THE W. F. MUNSON & SONS' Co., stair builders, 85 Water street. Incorporated in 1896; capital, \$20,000. President, F. T. Munson; vice-president, George Readings; secretary and treasurer, W. H. Munson.

THE NEW HAVEN ELECTRIC Co., capital \$400,000. President and treasurer, James English; secretary, Addison F. Hunie.

THE NEW HAVEN SHOE Co., 842 and 846 Chapel street. Capital, \$33,000. President and treasurer, Wallace B. Fenn; secretary, John G. Mason; assistant-treasurer, Bruce Fenn.

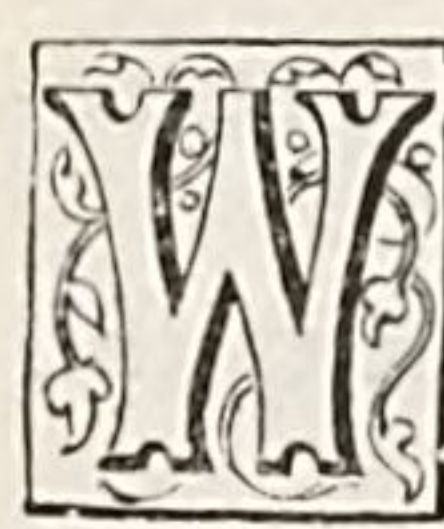
THE SCHORER Co., wholesale crockery, etc., 183 to 189 State street. Incorporated in 1895; capital, \$20,000. President, Charles F. Schorer; secretary and treasurer, Hart D. Munson; assistant-secretary, G. Hopkins Gill.

THE SMEDLEY Co., baggage-express and trucking, 313 State street. Capital, \$18,000. President, Clark L. Smedley; secretary and treasurer, Thomas J. Donnelly; general manager, Leonard C. Ryder.

THE STARBIRD MANUFACTURING Co., manufacturers of sarsaferine, 166 St. John street. Incorporated in 1896; capital, \$30,000. President, C. F. Copeland; secretary and treasurer, William J. Barry.

CHAPTER LXXXV.

MANUFACTURING INTERESTS—Continued.

ATERBURY is known the world over as The Brass City, the name arising from the character of its principal industries. In a small way the brass industry in this community can be traced back to the eighteenth century. The clock business was carried on quite extensively before 1800, and about that year the casting of pewter buttons was commenced. A half century previous to this Joseph Hopkins had established a silversmith shop, and about 1760 made buttons of horn, covered with silver. The button industry developed rapidly in Waterbury, and the Haydens first began the covering of buttons by machinery about 1830. Waterbury has the distinction of being far ahead of any other place in the country in the manufacture of metal buttons, and bears the honors for the invention of machines for making cloth-covered buttons. By 1840 the manufacture of sheet-metal and wire had outstripped every other industry in Waterbury, and the manufacture of the many articles which consume this product grew apace. Dr. Anderson's History of Waterbury says that the aggregate capital employed in Waterbury in 1830 was less than \$100,000; in 1848, about \$600,000; and in 1852,

\$1,100,000. The industrial growth was rapid from that time, and the census bulletin for 1890 shows that there was \$14,638,476 capital employed, and 9,565 hands. Really the first joint-stock corporation organized in the city was the Benedict & Burnham Manufacturing Company, on January 14, 1843, although prior to that time several concerns, then considered large ones, had been in existence. The Scovill Manufacturing Company, under various names, had been doing business for forty years, and Benedict & Burnham, under one name or another, had been in existence since 1812. The Waterbury Manufacturing Company was incorporated by a special act of the legislature as early as 1814, and continued in the manufacture of cloths and other fabrics of wool and cotton for years. "The Naugatuck Manufacturing Company," which later became the Beecher Manufacturing Company, received a special charter in 1833, and continued until 1839 in the manufacture of fine broadcloths. Jones, Beecher & Company formed a partnership in 1836 for the manufacture of gilt buttons. Brown & Elton came into existence in February, 1838.

But Waterbury took its impetus as a manufacturing centre from the formation of the Benedict & Burnham Company in 1843, and the half century following was an era of prosperity and progressiveness for the Brass City.

In the fifty odd years preceding this date (1896) nearly 300 companies were organized. Dr. Anderson's History of Waterbury shows that from 1851-1855 there were forty-five new companies, and there was a steady growth of them up to the present. The largest number sprang into existence from 1891 to 1895, when 48 new companies were recorded. Of the total number of companies formed 100 are working in metals.

There are at the present time in Waterbury in the neighborhood of one hundred and twenty-five corporations, and more than a third of them are working in metals.

Foremost among the industries of Waterbury is the BENEDICT & BURNHAM MANUFACTURING COMPANY, which really owes its origin to the bone and ivory button manufactory started in 1812 by Aaron Benedict. Eleven years later Mr. Benedict became associated with several others in the manufacture of gilt buttons, under the firm-name of "A. Benedict," the capital stock being \$6,500. The business prospered, and in 1827, with one or two changes, was renewed, the capital stock being doubled. On February 2, 1829, a new company was formed, and the firm became "Benedict & Coe," their capital being \$20,000. The firm consisted of Aaron Benedict, Israel Coe, Bennet Bronson, Benjamin De Forest, Alfred Platt and James Croft. The new concern began to do its own brass-rolling, and a few years later the manufacture of brass and German silver had become a great industry in Waterbury.

On February 10, 1834, Benedict & Burnham succeeded Benedict & Coe, the capital being \$40,000; the partners of Mr. Benedict being John W. Burnham, Bennet Bronson, Alfred Platt, Henry Bronson, Samuel S. De Forest and John De Forest. The copartnership was renewed in 1838 with a capital of \$71,000, and again, two years later, with \$100,000 capital. In January, 1843, it became the Benedict & Burnham Manufacturing Company. In 1848 the capital stock was increased to \$200,000, and in 1856 to \$400,000. The company produces copper and all its alloys, brass, German silver, wire of all sizes, brazed and seamless tubing of brass and copper, safety pins, rivets, lamp burners and trimmings, insulated electric wire, hard drawn copper wire, and many other articles in brass and copper.

The company stands as the originator of other concerns, among them the American Pin Company, the Waterbury Button Company, the Waterbury Clock Company, and the great Waterbury Watch Company owes its existence to the members of this concern.

The officers are: President, A. S. Chase; treasurer, Edward L. Frisbie, Jr.; secretary, A. M. Dickinson.

THE SCOVILL MANUFACTURING COMPANY, one of the most famous in the history of Waterbury, had its origin in 1802, when the manufacture of metal buttons was begun by Abel Porter & Co. The business went through many changes, but was always prosperous, until it became the great Scovill Manufacturing Company, with a capital of \$400,000, and a force of employees numbering twelve hundred. Abel Porter, Daniel Clark, Silas Grilley and Levi Porter originally employed nine workmen. The first change in the firm came in 1806, when Levi Porter sold his interest, and two years later David Hayden was taken into the partnership. Silas Grilley sold out in 1809, and on September 19, 1811, the firm became known as Leavenworth, Hayden & Scovill, the proprietors being Dr. Frederick Leavenworth, David Hayden, and J. M. L. Scovill. Thus they continued until 1827, when William H. Scovill purchased the interests of Dr. Leavenworth and Mr. Hayden for about \$10,000, and the two brothers conducted the business under the firm-name of J. M. L. & W. H. Scovill. Three years later their button mill was entirely destroyed by fire, but was quickly rebuilt. They had greatly enlarged the capacity of their rolling-mill. In 1840 the firm established at Oakville the manufacture of brass-ware under the name of Scovills & Buckingham, the junior partner being their brother-in-law, John Buckingham. Their nephews, Scovill M. Buckingham and Abram Ives, were also admitted to the button business, and the firm-name became Scovills & Co., continuing so until 1850, when there was a consolidation of all branches into a joint-stock corporation of \$200,000 capital, all the partners and a number of their employees becoming stockholders.

Between 1868 and 1872 there was another enlargement of their plant, and a new button factory was built. This was partially burned on February 13, 1881, the fire doing \$148,633 damage. In 1824 the firm, then known as Leavenworth, Hayden & Scovill, presented to the Marquis de Lafayette a full set of solid gold buttons, the presentation taking place in New York, as it was found impracticable for Lafayette to visit Waterbury. The die was cast at the United States Mint, and is still preserved. In 1876 several sets were struck from it, and at the Centennial Exhibition they were presented to members of the French commission.

In 1842, soon after Daguerre's invention was introduced, the Scovills began manufacturing plated metal for daguerreotype plates, and they met with success. They also manufactured cameras and other material for daguerreotyping. In 1889 the photographic business was made an independent corporation under the name of the Scovill & Adams Company, with a capital of \$200,000. The company has a factory in New Haven, and another in New York, and employs 150 hands. The main business has grown rapidly since 1850, when 190 hands were employed and the horse-power used was 80. In 1880 there were about 400 employees and 340 horse-power. Then followed a rapid growth until, in the height of manufacturing prosperity in 1892, the number of hands employed was 1,200, and the horse-power used had been increased to 1400. The company has many employees who have served from thirty to fifty years. The officers are: President, F. J. Kingsbury; treasurer, C. P. Goss; secretary, M. L. Sperry.

BROWN & ELTON were the pioneers in an industry which has grown to great dimensions. The firm was organized in 1830 by Israel Holmes, who was employed by the Scovills and declined an opportunity to become a member of that firm because he saw promise of great success in the manufacture of sheet-brass. The firm consisted originally of eight partners, each of whom contributed \$1,000, and, in 1832,

John P. Elton, of Watertown, became an active partner by adding \$1,000 to the capital stock, making the total investment \$9,000. A factory was built upon Mad (Nau-gatuck) river, where Rogers & Brothers' factory stands at present. During its early years there were various changes in the make-up of the firm, and, in January, 1837, it became known as Hotchkiss, Brown & Elton. A year later it became Brown & Elton, the senior partner being Philo Brown, and remained so until the dissolution of the partnership. In February, 1838, it became a limited partnership with a capital of \$75,000, afterward increased to \$100,000. The concern was never incorporated. Later, the making of brass and copper-tubing and brass wire was added to the manufacture of sheet brass.

In 1842 an important addition was made by the purchase of one-third of the firm of Slocum, Jillson & Co., of Poughkeepsie, N. Y., manufacturers of pins. Later that same year, they became the owners of the Fowler Pin machine, by purchasing the firm of M. Fowler & Sons, of Northford. All the machinery was transferred to the Waterbury mill.

In 1846 the American Pin Company was organized by Brown & Elton and the Benedict & Burnham Manufacturing Company, each becoming half owners. The capital stock was \$50,000. The business of the Poughkeepsie firm was purchased and removed to Waterbury.

Mr. Elton retired in 1850 because of impaired health, and Philo Brown with his brothers, William, Augustus and James, organized the firm of Brown & Brothers. When Brown & Elton dissolved, in 1856, they took one-half and Holmes, Booth & Hayden the other half of the business. Brown & Brothers, in 1851, continued the manufacture of brass, copper, German silver, wire tubing, and other goods until 1886. They were the first concern in the country to use steam power for rolling brass. In 1874, the manufacture of seamless copper boilers, seamless brass and copper tubing was added to the business. In May, 1884, the firm was in financial straits, and finally was forced to assign. From this sprung the great plant of Randolph & Clowes.

George H. Clowes had been with Brown & Brothers for twelve years and he formed a partnership with Edward F. Randolph, of New York. They purchased the plant of Brown & Brothers, which had been used in the manufacture of brazed and seamless tubing, and also the boiler works, for \$37,500. On April 1, 1886, they began work, employing half a hundred hands, and inside of three years were doing a business amounting to \$600,000 per annum. In 1889 they purchased the remainder of the old plant of Brown & Brothers, and commenced to manufacture sheet brass and copper. The plant is valued at over \$1,000,000, and is considered the best seamless tube factory in the world.

THE PLUME & ATWOOD MANUFACTURING COMPANY was organized in January, 1869, and for two years was known as the Holmes, Booth & Atwood Company. The incorporators were: Israel Holmes, John C. Booth, Lewis J. Atwood, David S. Plume, Aaron Thomas, George W. Welton, Burr Tucker and others, and Mr. Holmes was its first president. They have now one of the most extensive plants in the world devoted to the manufacture of sheet brass, wire, kerosene burners, lamp trimmings, copper rivets and similar goods. The company bought soon after its formation the Hayden & Griggs Manufacturing Company, and the rolling mill of the Thomas Manufacturing Company, in Thomaston, and the capital stock of the company was valued at \$400,000. The company was incorporated in January, 1880, and the present officers are: President, L. J. Atwood; treasurer, D. S. Plume; secretary, R. H. Swaze, New York.

Holmes, Booth & Hayden were incorporated February 2, 1853, with a capital stock of \$110,000. This has since been increased to \$400,000, and there is nearly four times the latter amount invested in the business. The concern is engaged in casting, rolling, drawing brass and copper, and were the first to make planished copper-silver plates for daguerreotyping. They are large lamp and burner manufacturers, and have also large plants for producing brass and copper wire for electrical uses. They are among the largest producers of brass, German silver, copper in sheets, wire jack chain, tubing, lamps, burners, and many kindred articles. They have twice been visited by fire, their silver-plated spoon factory having been burned in February, 1880, and their rolling-mill and lamp factory in October of the same year. Larger factories replaced them immediately. The officers are: President and treasurer, Thomas B. Kent, New York; vice-president, T. B. Burnham, New York; secretary, George H. Benham; assistant treasurer, F. L. Adams.

THE WATERBURY BRASS CO. owes its origin to Timothy Porter, who enlisted the interest of a number of capitalists in the enterprise in 1845, and thus added a fourth brass mill to Waterbury's growing industries. The directors were Israel Holmes, John P. Elton, Philo Brown, Julius Perry, Hobart V. Welton and Timothy Porter. In February, 1846, work was begun with a capital of \$40,000, which within a year was increased to \$50,000. At the time it was built the factory was one of the largest in the United States. There were constant increases in the capital stock of the company to meet the demands of a growing business, until in 1865 it aggregated \$400,000.

The American Flask and Cap Company was consolidated with the Waterbury Brass Company March 20, 1865. This concern was organized in 1857 in Meriden and was capitalized at \$125,000, most of the stock being owned by the stockholders of the Waterbury Brass Company. The company has had several losses from explosions, which resulted in the loss of lives, but its most serious disaster was the destruction of its rolling mill January 14, 1892, entailing a loss of \$200,000. The company rebuilt this factory without delay. The officers are: President, James S. Elton; vice-president and treasurer, Edward D. Steele; assistant treasurer, John P. Elton; secretary, G. C. Hill.

The formation of the American Pin Company by Benedict & Burnham and Brown & Elton, has already been spoken of. This concern, after increasing its capital stock in 1850 to \$100,000, began the manufacture of hooks and eyes by automatic machinery. The business gradually increased until employment is given to about two hundred and fifty hands. The company's product includes a large variety of brass wares for use and ornament. Since February, 1894, the American Pin Company has occupied a commodious and modern factory in Waterville, near the Naugatuck river. Their main building is four hundred feet long and four stories high, and is equipped with the latest electrical appliances for lighting. The officers are: President, A. M. Blakesley; secretary and treasurer, George A. Driggs.

THE WATERBURY BUTTON CO. occupies a factory which embraces an area of eight acres, and employs over three hundred operatives. The company manufactures metal buttons, of vegetable ivory, of composition, and cloth-covered buttons. Buttons for military and other uniforms are also manufactured. Since its earliest years, Waterbury has not been without its button factories, but this is the only one engaged distinctively in this line of manufacture. It was organized by the Benedict & Burnham Manufacturing Company, but was not made a separate concern until November 30, 1849. The capital stock was originally \$30,000. The officers are: President and treasurer, J. R. Smith; secretary, John C. Smith.

THE LANE MANUFACTURING Co. was organized in 1850 by Merritt Lane and a number of others, with a capital of \$30,000. They manufacture buttons of all kinds and a variety of fancy metal goods. The officers are: President, E. D. Steele; treasurer, S. B. Lane; secretary, H. B. Lane.

THE WATERBURY MANUFACTURING Co. has a capital stock of \$50,000, and employs over three hundred operatives in the manufacture of brass articles, such as buttons, brass castings, upholstery trimmings, saddlery goods, umbrella, furniture and various patented novelties. The business was originally started in 1837 by W. P. Hitchcock, and went through various changes, becoming the United States Button Company in 1865. In December, 1875, the United States Button Company's property was sold at auction, and was purchased by the new concern, which, in January, 1876, was incorporated as the Waterbury Manufacturing Company. This name had been used by a company in 1814 and in 1873. Its treasurer is H. S. Chase.

ROGERS & BROTHER, whose works are located in the city of Waterbury, Conn., are probably the oldest manufacturers of nickel-silver spoons and forks in the United States.

In the year 1846 Asa H. Rogers began experimenting in electro-plating, and in 1847, with his brothers, William and Simeon S. Rogers, he established, in the city of Hartford, the firm of Rogers Brothers. In 1858 the brothers, Asa and Simeon S. Rogers, with Le Roy S. White and D. B. Hamilton, removed to Waterbury and established there the firm of Rogers & Brother, which was organized the following year as a joint stock company, under the laws of the state of Connecticut. The five original directors were Simeon S. Rogers, Asa H. Rogers, Greene Kendrick, D. B. Hamilton and Le Roy S. White. Simeon S. Rogers was elected president; Greene Kendrick, treasurer; D. B. Hamilton, secretary; Le Roy S. White, superintendent.

They purchased the stone mill located on Mad river, formerly occupied by Brown & Elton as a brass mill. From rolled nickel-silver the company manufactured spoons, forks, knives and other articles of flat-ware in great variety, and on a far more extensive scale than had ever been attempted before in this country.

In 1862 Simeon S. Rogers resigned the office of president, and Greene Kendrick was elected his successor. He held the office until January, 1867, when Philo Brown was elected president, owing to the resignation of Mr. Kendrick. In January, 1874, Dennis C. Wilcox was elected president, and remained in that office until 1881. In January, 1882, D. B. Hamilton, the former treasurer, was elected president, and still holds that office.

The present directors are D. B. Hamilton, George C. White, George H. Wilcox, George Rockwell, G. M. Curtis, F. P. Wilcox and C. Berry Peets.

The original factory has been enlarged and improved from time to time, and is to-day the largest and best-equipped plant of its kind in this country. "The Olive," the first fancy pattern in electro-silver plate made in America, was originally made by this company, and bore their trade-mark (*Star*) *Rogers & Bro. A-1.*, which has since become celebrated, and all articles bearing that trade-mark are now known throughout the United States as the *Star Brand* goods.

The company has a fine store No. 16 Cortlandt street, New York city, and their interests have been ably represented there by Messrs. George C. White and George C. White, Jr., for the past thirty years.

Owing to the enterprise and energy shown by the managers of the company during its long and successful career, their goods are known all over the United States and throughout the world where spoons and forks are used.

In spite of keen competition, they have passed the crucial test of time, and have,

by their artistic styles and the enduring qualities of their goods, become rightfully entitled to the high place they have attained in the business world, and the highly successful results that have followed their efforts during the last half a century.

THE WATERBURY BUCKLE COMPANY, organized April 7, 1853, has a capital stock of \$100,000. The company manufactures buckles and trimmings for suspenders, and other small wares made from wire and sheet metal.

THE WATERBURY CLOCK COMPANY was an offspring of the Benedict & Burnham Company, but was incorporated March 27, 1857, under its present title, with a capital stock of \$60,000. The business grew steadily, and the company removed to its plant on North Elm street in 1873. The buildings occupy an area of several acres, and the number of employees is about 700. Its product includes clocks in cases of marble, onyx, enameled iron, nickel, mahogany, ebony, oak and other woods, and of many designs. Its growth has been phenomenal. The company has salesrooms in New York, Chicago and Glasgow, Scotland. H. L. Wade is president and treasurer, and Irving H. Chase, secretary.

THE OAKVILLE COMPANY is engaged in the manufacture of safety pins and small wire goods, the latter products having been added as the pin business declined. The company was organized March 15, 1852, its formation being due to an invention by Chauncey O. Crosby for sticking pins on paper. The capital stock, originally \$53,000, was increased to \$75,000. Their present property was erected in 1869. Since 1860 the business has prospered steadily, much being due to the management of its secretary and treasurer, J. Hobart Bronson, and its president, E. C. Lewis.

THE STEELE & JOHNSON MANUFACTURING COMPANY began business in 1852 with a capital of \$6000, manufacturing gilt and plated-metal buttons; was sold out to the Waterbury Jewelry Company in 1856, and this concern wound up its affairs a year later. In 1858 Charles M. Mitchell, Elisha Steele, Milo Hine and Joseph J. Johnson organized the Steele & Johnson Button Company and leased the factory of the Jewelry Company. During the war the company was obliged to run its factory day and night to fill government contracts for military buttons and trimmings. In 1874 the business was removed to the present factory on South Main street, and in 1875 the capital stock was increased from \$6000 to \$30,000. The company bought its factory and doubled its capacity in 1888. The officers are: Charles M. Mitchell, president and treasurer, and Benjamin L. Coe, secretary and superintendent.

THE NOVELTY MANUFACTURING CO. includes in its list of manufactures mountings for umbrellas, household ornaments, ferrules, buckles, parasols and a variety of toys. It dates from May 26, 1872, a year which was one of struggle for existence, and at the close of which the net profit was but seventy-five cents. The business, however, increased steadily under its first president, William H. Blake. Mr. Blake was succeeded by Edwin Putnam, then treasurer, and upon the death of the latter, in 1888, the position was filled by Thomas Fitzsimons, who had been secretary since the company was organized. He still holds that office. The secretary is Louis E. Fitzsimons.

THE SMITH & GRIGGS MANUFACTURING CO. was originally a partnership between John E. Smith and Henry C. Griggs, and was formed in 1864. It became a stock company on June 5, 1869, with a capital of \$40,000. The company manufactures a variety of metal goods, buckles, clasps and slides, and fancy carriage-hardware. They are located in Hopeville, a district of Waterbury. The officers are: President, A. S. Chase; secretary and treasurer, Edward S. Smith; assistant-treasurer, R. H. Smith.

THE PLATT BROTHERS & CO. date back to April 1, 1847, when Alfred Platt & Company began the manufacture of metal buttons, his two sons, W. S. and C. M. Platt, being associated with him. The stock company was organized January 22,

1876, after the death of Alfred Platt, with a capital of \$30,000. They have two factories, one on Brown street and the other at Platt's Mills, and their business includes the rolling of metal and the making of metal buttons. The officers are: C. M. Platt, president and treasurer; and Lewis A. Platt, secretary.

THE PATENT BUTTON CO. is practically owned by the stockholders of the Platt Brothers & Company, and was incorporated at the same time. Their business is the manufacture of buttons, and is carried on in connection with the other concern. Porter Brothers & Company are the selling agents for both. The officers are: President, Thomas W. Porter, New York; secretary, J. H. Hart; treasurer, C. M. Platt.

In September, 1892, the company purchased the entire interest at Platt's Mills, including the flour-mill. The officers of this company are: President and treasurer, C. M. Platt; secretary, L. A. Platt.

BLAKE & JOHNSON, incorporated February 17, 1852, have two factories, the one on East Main street being used in the manufacture of wire goods, such as screws, rivets, pins, piano and organ hardware, and the Elm street factory being occupied by the machinery business. The company builds presses, rivet machines, small rolling mills, rolls, bicycles, and special automatic machinery. Blake & Johnson furnished to the United States mints at Philadelphia and San Francisco, a pair of cast-steel rolls each in 1857, and also in the same year filled an order for the royal mint of Great Britain for a pair of steel rolls ten inches in diameter and fourteen inches long. In 1863 and 1864 they furnished to the United States arsenal at Frankford, Pa., seventy presses for the manufacture of cartridges. The capital stock of the company is \$9,000. The officers are: President, James S. Elton; secretary and treasurer, R. R. Stannard; superintendent, Frank B. Manville.

THE WATERBURY FARREL FOUNDRY AND MACHINE CO. was, until March, 1880, a part of the Farrel Foundry and Machine Company of Ansonia. At that time E. C. Lewis purchased the Waterbury plant from the Farrels, and in July, 1880, organized a joint stock company with a capital of \$100,000, becoming the first president. The company builds rolling mills, power presses, rivet-making machines, drop presses, lathes, shafting, and a great variety of machinery. Their brass and iron foundries turn out large castings. The officers in 1896 were: President, E. C. Lewis; secretary and treasurer, W. E. Fulton.

THE AMERICAN MILLS CO. was organized in November, 1881, with a capital of \$75,000, by Earl A. Smith, his son, Archer J. Smith and several others. They purchased at that time the entire plant of the American Suspender Company, which was obliged to discontinue business in 1879. The business dates back to 1839, when E. E. Prichard and Julius Hotchkiss began the manufacture of elastic and non-elastic webbing for suspenders and garters. Later they were succeeded by the Hotchkiss & Merriman Manufacturing Company, which, in 1857, became consolidated with the Warren & Newton Manufacturing Company of Oakville. This resulted in the incorporation of the American Suspender Company. The present concern, the American Mills Company, has been very successful. Earl Smith is president, and A. J. Smith, secretary and treasurer.

BLAKE, LAMB & CO. were incorporated in 1867 with a capital stock of \$9,000. The company manufactures the Blake patent game traps, Texas cowbells, brass butt hinges, organ springs, and iron and steel washers. The entire plant was bought from the former owners in 1895 by G. B. Lamb, R. S. Wotkyns, J. P. Elton and others. Mr. Lamb is president; and Mr. Wotkyns, secretary.

BARNARD, SON & CO. was organized January 6, 1866, its capital being \$15,000. This was doubled in July, 1870. The company manufacture shears and scissors with

steel blades, cutlery of different kinds, saddlery trimmings, locks, and other articles of iron, steel and brass. The company was originally located in Waterville. The company bought what was known as the cotton mill, in August, 1870. Their shear shop was destroyed by fire November 30, 1872, and the present factory was built the following year. The officers are: President, Joseph L. Porter; treasurer, Henry C. Robinson; secretary and superintendent, William F. Norman.

THE E. J. MANVILLE MACHINE CO. was incorporated October 6, 1886, for the manufacture of special machinery for working wire and metal, dies, tools, etc. Its capital stock is \$25,000. The concern continued a business which was started in 1878 by Eli J. Manville, and has been successful. The officers are: President, M. H. Brennan; treasurer, D. T. Hart; secretary and manager, A. C. Campbell.

THE MATTHEWS & WILLARD MANUFACTURING CO. was organized April 8, 1890, with a capital stock of \$250,000, succeeding the corporation of the same name, which went into the hands of a receiver in 1888. The business goes back to 1814, when Henry A. Matthews began the manufacture of saddlery hardware and carriage trimmings. The business went through a number of changes until 1882, when it became the Matthews & Willard Manufacturing Company, having previously been known as the Matthews & Stanley Manufacturing Company. In 1880, the scope of the business was widened by the production of stove ornaments in brass and bronze, brass furniture, statuettes, and various specialties, their trade extending all over this country. After the company went into the hands of a receiver the plant was purchased by H. F. Davis, of Watertown, and Charles Miller, and the company reorganized. The officers are: President, F. L. Curtiss; treasurer, C. P. Goss; secretary and manager, Robert F. Griggs.

THE STANDARD ELECTRIC TIME CO. is the outgrowth of the business of C. D. Warner, of Ansonia, who first put in practice the idea of communicating a standard time from a centre by electricity. Mr. Warner controlled many patents together with Vitalis Hinner, a New York watchmaker, with whom he became associated. They organized the Time Telegraph Company in 1883, and a large business followed. The first factory to be connected electrically with Mr. Warner's regulator was Thomas Wallace & Sons, of Ansonia. The Electric Time Company was organized in 1886, and in January, 1887, it became The Standard Electric Time Company, controlling all Mr. Warner's patents for the United States. The main office was transferred to New Haven, but in June, 1894, the stock of the company having passed into the hands of Waterbury men, the company removed to that city.

They furnished the New York, New Haven and Hartford Railroad offices in New Haven with sixty clocks, all connected with a central regulator. The company commenced making, in 1892, a self-winding clock, wound by two cells of battery. The capital stock is \$10,000. The officers are: President, H. L. Wade; treasurer, George E. Judd; secretary and manager, Leroy Upson; mechanical superintendent, Charles D. Warner.

THE WHITE & WELLS CO. are carrying on a business long established, that of manufacturing paper boxes, buying and selling all kinds of paper stock, straw boards, twines, etc. The present concern was organized February 1, 1895, with a capital of \$50,000, and these officers: President and treasurer, George L. White; secretary, W. E. Norris. The business has been carried on for more than forty years, Henry S. and J. Watson White having started paper-box manufacture in 1851. L. C. White purchased the business in 1866, after the death of his brother, and with Captain Alfred Wells continued it until the death of Captain Wells in 1886, when E. L. White became a partner. The factory on Bank street, originally

of wood, was destroyed in 1868 by fire, and the present brick building replaced it. This firm established the Bridgeport Paper-Box Company in 1887, and also a paper box factory in Naugatuck.

THE ROGERS & HAMILTON CO. was organized February 14, 1886, with \$50,000 capital, to manufacture silver-plated flat ware, knives, forks, spoons, etc. The officers are: President, Charles A. Hamilton; secretary, W. H. Gaines; superintendent, A. M. Burritt.

THE TRACY BROTHERS CO. are carpenters and builders. The company was incorporated in 1894 with a capital stock of \$50,000. The officers are: President, George Tracy; treasurer, Cornelius Tracy; secretary, J. L. Sweiger.

THE VICTOR MANUFACTURING CO. was organized February 18, 1896, and has a capital stock of \$25,000. They are located at 27 Benedict street, and manufacture the "Victor Bottle Stopper" and various small wares. The officers are: President and treasurer, V. L. Sawyer; secretary, Charles H. Elmore.

THE NEW ENGLAND ENGINEERING CO., incorporated in 1890, have a capital of \$40,000. The officers are: President, A. M. Young; secretary, E. S. Breed; treasurer, A. O. Shepardson. They are electrical engineers and do wiring and general electric work.

THE HAWKINS CO. manufacture patent drying-out machines for sheet brass, draw benches for tubing, rivet machines, and machinery for parlor and sulphur matches. The capital stock is \$15,000. The officers are: President, C. M. Platt; treasurer, L. L. Hawkins; secretary, G. W. Tucker.

THE CROSS & SPEIRS MACHINE CO. are designers of machinery for working metals. The company was incorporated in 1891 with a capital of \$20,000. President, R. G. Speirs; treasurer, F. E. Cross; secretary, A. J. Wilsdon.

THE AMERICAN RING CO., at 531 Bank street, manufacture silvered and iron rings, drawer pulls, curtain pole trimmings, sleigh bells, trimmings for metallic bedsteads. The company is controlled by the Plume & Atwood Manufacturing Company. It was incorporated in 1852 with a capital of \$50,000, and their factory was on Canal street until 1872, when fire destroyed it. The officers of the company are: President, E. M. Burrall; treasurer, D. S. Plume; secretary, David N. Plume.

THE BRISTOL CO. was incorporated in January, 1894, with a capital of \$10,000. They make recording instruments for pressure, temperature and electricity, and also patent steel belt lacing.

THE CONNECTICUT INDEMNITY ASSOCIATION is a Waterbury institution, in which the city takes pride. It was organized in October, 1883, as a voluntary life, health and accident association, by Victory L. Sawyer, Frederick M. Cannon, M.D., John Purdy and John H. Guernsey. April 7, 1887, it was incorporated, and its capital, which had been \$250,000, was increased to \$500,000. The association has been progressive, and its career has been one of continued success. The membership, small at first, increased rapidly, reaching five thousand in 1894, and going onward, among its policy-holders being prominent Connecticut men. Its stockholders include many of Waterbury's strongest financial men, and it now has an insurance in force of millions of dollars. The company wrote eight millions in 1895, and to January, 1896, paid over \$410,000 to members. The officers are: President, Lewis A. Platt; first vice-president, Henry L. Wade; second vice-president, Frederick B. Rice; secretary, John B. Doherty; treasurer, H. W. Lake; treasurer of reserve fund, A. M. Blakesley.

THE HELLMAN BREWING CO. is a comparatively new corporation, having been organized in 1895 with a capital stock of \$50,000. The officers are: President, Mrs.

Martin Hellman ; vice-president, William Hellman ; secretary and treasurer, W. D. Richardson.

A. L. PECK & Co., 60 Meadow street, are manufacturers of doors, sash, blinds, windows, and general dealers in lumber at wholesale. Charles P. Fontaine is the junior partner in the concern. They do a large and constantly increasing business.

THE PIERPONT COMPANY is a prosperous concern dealing in Chicago beef. The company was incorporated in January, 1896, with a capital stock of \$3,000, and is located at the foot of Judd street. The officers are: President, Edward A. Pierpont; treasurer, John L. Pierpont; secretary, William C. Upson.

The big dry-goods house of E. T. TURNER & COMPANY, at 36-40 Bank street, is one of the principal mercantile establishments of the city. The business was established by Edward T. Turner in 1863. His first partner was William Newton, but his interest was purchased by Mr. Turner. In 1881 H. A. Skidmore became a partner and remained until 1894. The present proprietor, Charles E. Turner, is a son of the founder of the business, and was taken into the firm in May, 1890, succeeding his father, who died December 2, 1891.

WARREN L. HALL is the largest wholesale grocer and fruit-dealer in the city. His store is located at 228 Meadow street. Mr. Hall is a prominent citizen, and represented the city in the state legislature in 1894 and 1896.

A house doing a large mercantile business is REID & HUGHES, the bon-ton dry-goods firm at 110-120 Bank street. Their large store is the pride of Waterbury buyers.

THE WATERBURY STEAM & GAS-PIPE WORKS do a thriving business. The proprietor is M. J. Daly, a progressive business man.

RALPH N. BLAKESLEE is the city's principal teamster. His office is at 160 Meadow street. Mr. Blakeslee has, by years of application, built up a large general trucking business.

Among the list of floral conservatories ALEXANDER DALLAS' stands first. He is located at 32 Union street.

In the line of millinery there is no more complete store than that of ISADORE CHASE, at 29 and 31 South Main street. The latest designs are displayed there in rare good taste.

SPENCER & PIERPONT conduct a large meat and grocery establishment at 352-356 East Main street, and a flour and grain store at 392-394 East Main street. The senior partner is I. A. Spencer, a business man of ability.

WILLIS C. HALL conducts a prosperous grocery business at 11 Cherry street.

VALENTINE BOHL is a wholesale beef dealer at 56 South Willow street, who does a large business.

Among the leading architects of the city is ROBERT W. HILL, of 140 Grand street.

THE WATERBURY WATCH CO. was incorporated on the 3d of March, 1880, and was the offspring of the Benedict & Burnham Manufacturing Company, one of the largest brass manufactories in the country. Mr. Charles Benedict was the president of both companies, and, previous to the formation of the watch company, had been experimenting for several years on a cheap watch, and in the fall of 1879 the first evidence of their work was placed on the market. The exceedingly low cost in comparison with what had been before at once attracted public attention, and the watches sold like the proverbial hot-cakes. Their arrangement for manufacturing, which at that time was in one of the buildings of the brass company, proved insufficient, and the present factory was then designed, and started early in 1880, at the time the company was formed. The factory was laid out for a product of two thousand

watches per day, and it was run to its full capacity for a great many years. It was demonstrated, like a good many other novelties that are brought out, that the popularity of a specialty is apt to wane, and the demand is for something better. This was soon apparent to the management, and they introduced new features, keeping the old, original model—of course, somewhat improved—up to 1892, and by that time had produced a number of new and handsome designs, as well as a variety of movements of various sizes.

One of the features of the old, original watch was the escapement, it being a new thing in modern watch-making, although it was an escapement that had been used in England and Switzerland years before. But they encountered many difficulties in its manufacture, and it had been discarded in England for all uses except fine chronometers and the best class of watches.

By improved methods of tool manufacturing for the production of the escape-wheel, this company were enabled to produce, not only accurate escapements, but for time-keeping quality unexcelled by any but the very best grade of watches made. The demonstration of this persistency to hold to the better grade of goods was the foundation for the large line which is now produced by this company, and also has added to its continual growth. At the present time they make the smallest watch that is made in the United States, and as handsomely-finished watches as are made in any country. The designs of all the cases are original, and show the highest order of artistic merit and skill. They are the only company that sell watches complete, and in no other way, and also are the only company that sell direct to the retail dealer.

After the experience with the old, cheap watch in selling to gift-enterprise concerns, as well as to any parties desiring to use watches for advertisements, they found it advisable to abandon this business, and manufacture exclusively for the retail trade; or, in other words, acting as their own jobbers, and placing the goods in the hands of every retail dealer in the United States. They have carried this out with success, and in all cases protect the dealers, not only in price, but also in their requirements that they shall not sell the goods for less than a stipulated price, which has resulted in a very satisfactory business, inasmuch as there is but one price for their goods, either to the dealer or the general public.

There is probably no one concern that is as well known throughout this earth as The Waterbury Watch Company, and in foreign countries wherever the name "Waterbury" is mentioned, it is usually known only in connection with the watch, and it is a very difficult thing to unlearn the majority of people that the company has not stood still all these years, but is to-day making a higher grade of goods than any other company in the United States. Not forgetting the fact that their original aim was to make low-costing watches, they still do this, as well as to make finer qualities.

The factory is very admirably located near the centre of the city, with beautiful grounds surrounding it, and is in the highest stage of development for manufacturing purposes. All parts of the complete watch are here manufactured, and no finer example of tool-making can be found than some of the machines and tools that have been acquired in the production of these goods.

The company has offices in New York, Chicago, and San Francisco, as well as established agencies in every quarter of the globe. Looking backward from its first models to the latest productions, it is really a marvel and a wonder that the growth has been so marked.

The organizer and first president of the company was Mr. Charles Benedict,

who died October 30, 1881, and was succeeded by Mr. Gordon W. Burnham, who died March 18, 1885. He was succeeded by Mr. Charles Dickinson, who died April 15, 1888, who, in turn, was succeeded by Mr. A. S. Chase, who died June 1, 1896. The present officers of the company are: E. L. Frisbie, president and treasurer, and A. O. Jennings, secretary.

THE H. L. WELCH HOSIERY CO.'s factory is located in Waterville. The company was incorporated in 1890 with a capital of \$80,000, and manufactures merino shirts and drawers in all their varieties. The business has been carried on for many years by Mr. Welch and his predecessors. It was the outgrowth of the Union Knitting Company, established by J. R. Crampton, in 1855, for the manufacture of woolen underclothing. F. B. Buck is secretary of the company, and Louis Cates, agent and superintendent.

Another concern in this district is the WATERVILLE CUTLERY COMPANY, which was first organized in 1840, as the Waterville Manufacturing Company, with Green Kendrick as president. The firm was succeeded later by the firm of Sprague & Boyden, which became the Waterville Cutlery Company in 1890, the capital stock being \$25,000. The president of the company is W. Sumner Babcock, and secretary and treasurer, George L. Jenks.

THE BERBECKER & ROWLAND MANUFACTURING CO. is located in Waterville. The company was incorporated in 1886, with a capital of \$25,000, to manufacture upholstery and cabinet hardware, brass curtain poles and trimmings, and other specialties. The officers are: President, Thomas Morris, New York; treasurer, C. W. Berbecker; secretary, Herbert S. Rowland.

NAUGATUCK is best known to the outside world as a manufacturing centre. This reputation is due in part to the great rubber companies which form its principal industries. Among its first industries were those, about 1824, which were devoted to the production of gilt buttons, clocks and carding machinery. The industries of the past have been varied, among them being those for making nails, hoes, buttons, cutlery, pins, clocks, paper, malleable iron, rubber and other articles, but the products of the present time are principally rubber goods, hosiery and knit underwear, malleable-iron castings, pins, buttons, thimbles, and various novelties in metals. The rubber industry goes back to 1844, the same year the town was incorporated.

THE NAUGATUCK MALLEABLE IRON COMPANY, located in Union City, almost opposite to the railroad station, is one of the principal corporations of the town. The business goes back to the organization of the Tuttle & Whittemore Company in 1858. The partners were B. B. Tuttle and J. H. Whittemore. The Tuttle & Whittemore Company was incorporated in 1871, and in 1889 the Naugatuck Malleable Iron Company succeeded it, the stock being capitalized at \$100,000. The mill property has a frontage on the railroad line of twelve hundred feet and a depth of five hundred feet. The plant, when running at its full capacity, gives employment to five hundred men. The raw material used principally by the concern is charcoal, pig iron, and the products of the business are malleable iron castings for wagon wheels, hub-bands, and a great variety of other articles. The officers are: President, J. H. Whittemore; secretary, A. C. Tuttle; treasurer and general manager, L. D. Warner.

THE DUNHAM HOSIERY CO. was established in 1876 and was incorporated in 1879. The capital stock is \$50,000. The company manufacture a general line of wool and camel's-hair knit underwear for men, women and children, fine worsted jersey cloth and cotton net for rubber-shoe manufacturers, and sweaters. The factory covers about five acres of ground, and the buildings are largely stone structures.

Employment is given to about two hundred hands. The company has its own electric-lighting plant, and the factory is equipped with all the modern appliances for the manufacture of their line of goods. There are eighteen hundred spindles, seven sets of wool cards, eighty-four knitting machines and sixty sewing machines. The water wheel is of fifty-five horse-power, and this is supplemented by a steam engine of twenty-five horse-power. The officers of the company are: President, A. C. Dunham; treasurer, S. G. Dunham; secretary, Henry Osborne; and agent, D. P. Mills.

THE NAUGATUCK MANUFACTURING CO. was incorporated in January, 1895, for the production of metal shapes by galvanic action, an entirely new line of manufacture in the town. The officers are: President, George A. Lewis; secretary and treasurer, Tracy S. Lewis.

THE DIAMOND LABORATORY CO. was organized seven years ago in New Jersey, and its plant is located at Union City. The stock is capitalized at \$50,000. The officers are: President, W. I. Russell, of New York; Secretary, Charles T. Root; treasurer and manager, James O. May; chemist and superintendent, George F. Westbrook. The company produce a complete line of marshmallow preparations, compressed tablets, and their specialty is the marshmallow cream, and emulsion for throat and lung ailments.

HOMER TWITCHELL & SON purchased the business of the Connecticut Cutlery Company in 1872, and are among the enterprising industrial concerns of the town. The members of the firm are Homer Twitchell and Frank M. Twitchell. The principal products are umbrella ties and findings, and safety pins.

THE UNION CITY THIMBLE CO. are makers of steel thimbles and also electro-silver-plated thimbles. The industry is conducted by David and Herbert Pratt, father and son, and is located on Prospect street, in the former plant of the Connecticut Cutlery Company. It is the only establishment in the country making steel thimbles, and there is only one other concern making thimbles of any kind. Employment is given to about fifty operatives.

THE NEW ENGLAND BUTTON WORKS was started fourteen years ago by James and John Bird. The industry is confined solely to the manufacture of ivory buttons. The ivory nut is imported by the company in original packages, goes through the various processes of drying, sawing, turning, dyeing, etc., before it finally comes out in button form. The company employs about thirty people.

ANSONIA.—Fortune has smiled on Ansonia, and in her infantile days she was nurtured and cared for by her fathers so fondly that she soon developed a sound business constitution. Like many New England cities, superb water-power attracted the industrious manufacturer. The water privilege was confiscated, factories were erected, and the number of wheels since set in motion, combined with the skill of Ansonia manufacturers, have made the city famous throughout the world, the products of its various factories pervading every quarter of the universe. Like many other places, a few good men have made Ansonia what it is to-day, while ten thousand people now comprise its population. The founder of Ansonia was Anson C. Phelps, and the city now bearing his Christian name possesses unmistakable reminders of one of the most worthy men whose lot it has been to establish a community. It was only in 1844 that Mr. Phelps first started the mills that have made the place famous for the copper industry, and in a little over half a century it has grown to its present proportions. Until 1893, Ansonia was a part of the town of Derby, when it was set apart and was granted a city charter. Previous to that, and as far back as 1864, it was under a borough system of government. The water-power used by the

different mills and factories is supplied by the Ansonia Land and Power Company, who control the privilege on the Naugatuck river. This company is capitalized at \$250,000, and is an energetic concern, ever looking to the welfare of its own business and that of the city.

THE ANSONIA BRASS & COPPER CO. is the largest of local concerns, and one of the largest in the United States engaged in the manufacture of copper and brass goods. The works are also the largest in the Naugatuck valley and cover over sixteen acres of ground. The present mammoth mills, furnishing employment to twelve hundred hands, contrast strongly to the mills operated by the Ansonia Manufacturing Company in 1845, the first manufacturing industry of Ansonia, and from which the present company has developed. This pioneer corporation was incorporated under a capital of \$50,000 and laid the foundation of the present industrial Ansonia. Through the efforts of Anson G. Phelps, the business of the Birmingham Copper Mills was consolidated with that of the Ansonia Manufacturing Company and conducted here under his management until 1869, when the company was reorganized under the name of the Ansonia Brass and Copper Company. The plant is divided into four sections, which are located in different parts of the city and separated from each other. The mills are known and distinguished as the copper, wire, brass and lamp-fixtured and insulating mills. All four are admirably located for shipping goods, and excellent water-power, as well as steam, is utilized at all three. The company's capital, which is now \$1,500,000, has been increased several times, and the value of the plant is much more than that amount. The officers are: Wm. E. Dodge, president, New York; A. A. Cowles, vice-president and treasurer, New York, and William H. Matthews, secretary, Ansonia.

The second largest manufacturing concern of Ansonia is the FARRELL FOUNDRY & MACHINE COMPANY. Their works cover several acres of ground, and give steady employment to six hundred men. The goods made comprise heavy castings for machinery of nearly every description, and the company turns out on an extensive scale iron, brass and copper mill machinery, chilled rolls, etc., for all purposes, consuming annually about twenty thousand tons of metal in the manufacture of their goods. The industry was established in Ansonia by Almon Farrell, the Colburn brothers, and others, in 1848. Since that time the works have played an important part in the prosperity of Ansonia, and the growth of the business has been steady and rapid. Two years after the business was founded the concern became an incorporated company, of which Almon Farrell was president until his death in 1857. He was succeeded by his son, Franklin Farrell, who has piloted the affairs of the company to a position among the largest of the kind in the United States. The company is capitalized at \$100,000, and the present officers are as follows: Franklin Farrell, president; F. E. Hoadley, secretary; and C. F. Bliss, treasurer.

A local manufactory giving employment to fifteen hundred people is that conducted by the COE BRASS COMPANY, of Torrington, successors to Wallace & Sons, of this city, and now owning and operating the extensive plant and business formerly the property of Wallace & Sons. The main office and mills of the Coe Brass Company are located at Torrington, but at their local plant they have a branch office with mills for manufacturing braziers, sheathing and bolt copper, mirror-finished cold roll copper, patent leveled cornice copper, and copper wire for all purposes, etc. The company was organized in 1863, and has a capital of \$325,000. The officers are: Charles F. Brooker, Ansonia, president; Edward T. Coe, Torrington, treasurer; James A. Doughty, Torrington, secretary; manager of Ansonia branch, Frederick W. Wallace.

THE ANSONIA ELECTRICAL COMPANY is a prosperous concern engaged in the manufacture of insulated wires and other electrical supplies, including a great variety of specialties. About one hundred and seventy-five hands are employed. The company, under the present name, succeeded to the interest and good-will of the Electrical Supply Company, February 25, 1895, the business of which concern was established sixteen years ago. The officers are: Franklin Farrell, president; Thomas Wallace, Jr., vice-president and manager; Franklin B. Platt, secretary, and L. F. Anchutz, treasurer. The works of the company are located in the very heart of Ansonia, where every convenience is at hand for speedy filling and shipment of orders, and the factory is operated to its fullest capacity. The present management is a progressive one. The president is one of the ablest manufacturers and capitalists in the Naugatuck valley, and also the president of several other concerns, including the Farrell Foundry and Machine Company, of Ansonia.

In the manufacture of clocks, watches and lamps THE PHELPS & BARTHOLOMEW COMPANY, whose goods have been on the market for the past fifteen years, is extensively engaged. The business was first conducted under the firm-name of Phelps & Bartholomew, and was established in a comparatively small way by Albert Phelps and A. H. Bartholomew, two well-known manufacturers, in 1881. The first quarters occupied were in the Gardner building, but in 1890 the present stone factory in the centre of the city was resorted to in order to enable them to increase the output of their goods in response to the demand. In 1886 the firm became a corporation, and has steadily grown in importance in the manufacturing world. One hundred skilled hands are employed. The company does business under a capital of \$15,000. The officers are: Albert Phelps, president; A. H. Bartholomew, treasurer, and Howard O. Phelps, secretary.

Extensively engaged in the manufacture of clock dials is the firm of JOHN B. GARDNER'S SONS. The industry was founded by John B. Gardner in 1857. His regretted decease in 1890 removed one of Ansonia's most valued citizens and ablest manufacturers. After his death the business was assumed by his two sons, Sturges G. and Louis F. Gardner, the former having for several years been interested in the concern, and the firm of John B. Gardner & Son was changed to that of John B. Gardner's Sons. The firm manufacture brass clock-dials, sashes and scale-dials, and sash and nickel mattings for cabinet picture frames, their goods being shipped to all parts of the country, and, to no small extent, to Europe. A certain sunken centre dial, invented and patented by the late senior member of the firm, is made a specialty of and is highly popular with the trade from its close resemblance to the famous Vienna dial. About sixty hands are employed.

With a factory conveniently located near the business centre of Ansonia, where every advantage is at hand for the manufacture and shipment of goods, is the SCHNELLER, OSBORNE & CHEESMAN COMPANY. This company enjoys the distinction of being the largest concern in the world in the manufacture of eyelets. As a consequence, their goods are shipped not only to all parts of this country, but to Germany, England, France, Italy and Australia. It may be safely stated that there is no busier factory in Ansonia or vicinity than this mill, where the celebrated S. O. & C. eyelets are made. The factory occupied is a substantial brick structure, three stories in height, about four hundred and thirty feet long, with boiler-house and smaller buildings. The goods made comprise brass and other metal goods, eyelets for all purposes, eyelets for shoes and corsets as specialties. This company was incorporated in 1882, the late George O. Schneller being its treasurer, secretary and manager. Upon the death of Mr. Schneller the management of the business

devolved upon Franklin R. Johnson. The president of the concern is Hon. Charles Durand, and the capital of the concern is \$40,000.

THE ANSONIA, OSBORNE & CHEESMAN COMPANY is closely allied with the above concern, and is interested in the manufacture of suspenders, including the making of the webbing and buckles. The concern was incorporated May 1, 1892, with a capital stock of \$100,000. The officers are: F. S. M. Blun, secretary and treasurer; assistant treasurer, Mrs. Clarissa Schneller; secretary, Frank R. Johnson.

The foundry of the F. L. GAYLORD COMPANY, which concern was incorporated in 1893 with a capital stock of \$15,000, gives employment to a number of skilled mechanics. The officers are: Thomas Wallace, president; secretary and treasurer, F. L. Gaylord.

THE EXCELSIOR FAUCET MANUFACTURING COMPANY, with works on Pleasant street, has a capital stock of \$50,000. The officers are: George B. Montague, Brooklyn, N. Y., president; D. H. Smith, Yonkers, N. Y., secretary and treasurer.

DERBY, which was the first settlement made in the Naugatuck valley, is now a thriving city of nearly ten thousand inhabitants. It is fortunately located at the head of navigation, within the angle formed by the Housatonic and Naugatuck rivers. With an excellent water front, commerce with all parts of the world is possible, while the formidable waters of the Housatonic furnish the best and greatest water-power in the state, and second only to the Merrimack in New England. The early history of Derby reveals the fact that it was chartered as a town in 1675, and was previously known as Paugasset, and was so named by the Indians who inhabited it. Long before it was chartered as a town, its location attracted the old-time traders, who established an Indian trading post in a part of Derby now known as "Derby docks." Before the Revolution commerce was extensively carried on between Derby and the East Indies, and at the beginning of the nineteenth century it is said that the number of sailing vessels from this port was greater than that from New Haven. Ship-building was about that time the leading industry, and far above the mammoth dam of the Ousatonic Water Company packets, sloops and schooners were constructed. In 1681, the water of Naugatuck river was first utilized for power, and since that time has been continuously availed of. From Derby, in the Anson G. Phelps copper mill (now the Ansonia Brass and Copper Company), the principal industry of Ansonia was given birth. With the advent of the railroad the town grew in importance, acquiring factory after factory, and gradually became one of the busiest of Connecticut's manufacturing towns.

In 1851, the borough of Birmingham was chartered. Forty-two years later the town of Derby was granted a city charter, being incorporated in 1893. Industries, and well-conducted large factories, whose products are shipped all over the universe, are in steady operation here. Two lines of the New York, New Haven and Hartford Railroad—the Naugatuck and Berkshire divisions—have spur tracks extending through the properties of most of the larger manufactories. Derby holds the distinction of possessing the oldest electric railway in New England.

The largest of Derby factories is that of The Sterling Company. This concern manufactures the celebrated Sterling pianos and organs. The Birmingham Iron Foundry, manufacturers of all kinds of heavy machinery, is one of the most important concerns. Another leading industry is that of A. H. & C. B. Alling, makers of fine woolen under-clothing, whose goods are used by the dry-goods trade in all parts of the Union. The Howe Manufacturing Company adds much credit to the town in a historical way, having the distinction of manufacturing the first pins made in the

country. Combs, corsets, paper boxes, files, typewriters, brass goods and various other products are turned out from the various factories and mills of Derby.

In the firm of A. H. & C. B. Alling, owners of the Paugassett Mills, exists a most remarkable business partnership, extending from 1845 to the present time. The firm operate one of the oldest manufacturing industries in this vicinity, and enjoy a national reputation. They furnish employment to four hundred operatives. The history of this well-known firm is an interesting one, dating back to the time of hand-loom. They turn out high-grade underwear and men's first quality half-hose, operating 4,500 spindles. The Allings first engaged in business in Orange, Ct. In 1858, they removed the growing industry to this place, the change greatly increasing the capacity of their mills. With the growth of the business and demand for the reliable goods manufactured, the reputation of the firm became extended until, at the present day, the Paugassett mills have a national reputation. During the fifty years the mills have never failed to run full time, not even during the financial depression of 1896. The goods manufactured are staple articles.

THE BIRMINGHAM IRON FOUNDRY, with large works in Derby and a branch factory in Shelton, was first established in 1836 by Sylvester and Sullivan M. Colburn, twin brothers, who had previously carried on a small foundry in Westville. In 1838 their brother, Dr. J. M. Colburn, became interested with them, and later Sheldon Bassett was taken into the firm. In 1850 the Colburns sold out their interests. The present stock company was then formed under the name of the Birmingham Iron Foundry, with a capital stock of \$32,000. The capital has been increased from time to time, and since 1894 has been \$150,000. Sheldon Bassett, the first president, continued at the head of the corporation until his death in 1865. He was succeeded by his son, Royal M. Bassett, who, in turn, was succeeded by Henry F. Wanning, the former treasurer and agent of the company. The present officers are: Henry F. Wanning, president; Theodore S. Bassett, vice-president; Theodore Wells Bassett, treasurer; Francis D. Wanning, secretary. The company employ two hundred workmen. They manufacture principally chilled and sand rolls, rubber machinery of all kinds, and rolling-mill machinery for all purposes, besides all kinds of iron and brass castings.

One of the oldest factories in the city is that operated by the ROBERT N. BASSETT COMPANY in the manufacture of corset steels, dress stays, etc. This plant, since 1836, has been steadily operated, and was first started by David Bassett, who was the pioneer auger manufacturer here. In 1842 the property passed to his son, Robert N. Bassett, who was the head of the concern until his death in 1892. The Robert N. Bassett Company was incorporated in 1895 and is capitalized at \$25,000. About one hundred operatives are employed, the majority of whom are girls. The officers of the concern are: F. A. Russ, president; H. D. Sawyer, secretary and treasurer.

One of Derby's largest manufacturing concerns is THE STERLING COMPANY, manufacturers of pianos and organs, whose instruments have gained for the concern an almost world-wide reputation. The manufacture of these musical instruments having always been carried on here, Derby has shared the honors so gracefully won and worn by the Sterling Company. The organization of the company, by Charles Sterling, occurred in 1866, and the growth of the business in the intervening years has been but the result of the good business management of a plant turning out high-grade goods possessing ready-selling qualities. Upon the organization of the company, Mr. Sterling was chosen its first president, and, from the start to the time of his regretted decease in 1887, he continued at the head of the concern, guiding

the business to permanent and ever-increasing success. The capital stock of the Sterling Company is \$210,000. Following are the officers: President, R. W. Blake; secretary and treasurer, James R. Mason; superintendent, Charles H. Hubbell.

In order to meet a growing demand for a piano that could be sold for a lower price than the Sterling, the Sterling Company decided to organize another company for the manufacture of a piano which would meet the demand. The new company is known as THE HUNTINGTON PIANO COMPANY, and was organized with a capital stock of \$30,000. The officers are: A. J. Brooks, president; J. W. Brooks, secretary; R. W. Blake, treasurer; the last-named being also president of the Sterling Company. The Huntington Company occupies a fine, new building recently erected by R. W. Blake, in Shelton.

Adding to the fame of this live manufacturing community is the WILLIAMS TYPEWRITER COMPANY, who, under a million-dollar capital, make the celebrated Williams typewriting machine. This large industry removed to this city from Newark, N. J., in May, 1894, the company moving their machinery into their new factory within two months after the foundation for the structure was commenced. The factory, now giving employment to about one hundred and fifty skilled workmen, is located on Housatonic avenue near the dam on the Housatonic river, the water of which supplies the company with admirable and sufficient power. The typewriting machines made by the company are known and used all over the world, agencies and sub-agencies being established throughout the United States, Mexico and South America, while the Williams Typewriter Company, for Europe, control the sale of these goods in the Eastern hemisphere. The officers of this concern are: W. E. Andrews, Brooklyn, N. Y., president; A. E. Richardson, Burlington, Vt., vice-president; Hugh McDougall, Brooklyn, N. Y., secretary and treasurer.

THE DERBY SILVER COMPANY became a corporation in 1872 and began operations the year following. The products of this prosperous factory are known and find a ready market in all parts of the United States and are exported to several foreign countries. The factory now gives employment to over 300 hands. The company employs talented artists in the designing and moulding rooms, and their novelties and staple goods are popular with the trade. The product of the factory is in the form of special novelties in plated ware, including toilet articles, mirrors, combs, clocks, brushes, as well as the standard table and sideboard-plate, and numerous productions in standard silverware, noted for superior quality, handsome design and finish. The company is capitalized at \$300,000, which is held by local parties. The president and manager of the concern is Col. Watson J. Miller, a member of the staff and aide-de-camp to Governor Coffin. The secretary and treasurer of the company is Wesley L. Clark.

THE DERBY RUBBER COMPANY, reclaimers of rubber, was incorporated in January, 1889, with a capital of \$50,000. This concern's big plant at Shelton has been leased by the United States Rubber Reclaiming Company. The Derby Rubber Company's officers are: Henry Atwater, Bridgeport, president; Theodore Wells Bassett, Derby, secretary and treasurer.

THE DERBY COMB COMPANY, whose factory is located on Water street, employs about forty hands in the manufacture of plain and fancy combs. The concern was incorporated February 25, 1891, with a capital stock of \$20,000. The officers are Rufus W. Blake, president, and V. A. Page, secretary and treasurer.

THE NATIONAL KEG AND BOX COMPANY of this city owns a large factory in a Massachusetts town and controls the output of other factories throughout the country. This concern was incorporated in December, 1891, with a capital stock of

\$150,000. The officers are: Isaac J. Boothe, president; Col. H. Holton Wood, vice-president and treasurer, and Benjamin W. Porter, secretary.

The existence of the extensive establishment of HOWARD & BARBER is in a great measure responsible for the good name Derby has attained as a desirable trading centre, especially in dry-goods, furniture and carpets. The store of this concern is one of the largest in the Naugatuck valley and occupies several floors in the Alling block and the Board of Trade building on Main street. The gentlemen composing the firm are: Charles R. Howard and George E. Barber.

SEYMOUR.—The present site of this town was a portion of the town of Derby. A settlement was formed here known as Humphreysville, and in 1850 was changed to the present name. It is situated on the Naugatuck river. The early settlers were an intelligent class of people. They built dams and erected crude mills for grinding grain, sawing timber and other industries. To-day, Seymour is the seat of an important manufacturing interest, having four thousand population, most of whom find employment in the mills. The first industry to take root and eventually form the leading manufacture was the art of paper-making. This was started in a very crude form in a small mill, and the work was all done by hand. In a few years the place had a wide reputation as a paper-making town.

THE Y. BEACH'S COMPANY, whose immense plant covers many acres fronting on Beach street, is the outgrowth of the first paper industry started over ninety years ago. General Humphrey, after whom the village was named, started the industry in 1805 and continued the business by the old-time methods until 1825, when the increased business necessitated the enlarging of the mill and addition of improved machinery. Sharon Y. Beach and others became interested in the industry, and, in 1850, purchased the entire plant. He continued the business until 1880 when a stock company was formed with a capital of \$10,000. The present organization is the outcome of the change, additions having been made from time to time. The spacious stone and brick buildings will compare favorably with any similar industry in New England. The firm make a specialty in the manufacture of colored paper. The officers are: President, George W. Beach; secretary, Theodore B. Beach; treasurer and manager, Sharon D. Beach.

THE NEW HAVEN COPPER COMPANY is the offspring of the next oldest industry of Seymour. The plant was first established in 1848 as The Humphreysville Manufacturing Company with a capital of \$100,000. In 1852 the corporate name was changed to the present, and the capital increased to \$200,000. The company operate a branch mill in East New Haven. Their product consists chiefly of braziers and sheathing copper, polished copper, copper bottoms, circles and bolts. They also manufacture cast-steel bits and augers. The officers are: President, Thomas L. James; secretary, Lewis E. Camp; treasurer, Frederick A. Rugg.

THE UNITED STATES PIN COMPANY, incorporated in 1860 with a capital of \$50,000. They were formerly a Seymour concern. They maintain their office in the place. The president is Henry L. Hotchkiss, and secretary, Louis H. Bristol.

THE TINGUE MANUFACTURING COMPANY occupy a large three-story brick building on the site of the first grist mill built nearly one hundred years ago. In 1850 The Eagle Silk Company supplanted the old grist mill. The silk industry was continued until about 1869, when it went down. In 1880 The Tingue Manufacturing Company was incorporated, having a capital stock of \$200,000. The old silk plant was utilized. The new firm began the manufacture of silk and mohair plushes, plushes for dress goods, and upholstery work, etc. The company have done a suc-

cessful business, and own a large plant as well as many tenement houses for operatives.

THE FOWLER NAIL COMPANY, located on Franklin street, grew out of the invention of a machine for making horse-shoe nails, by Thaddeus Fowler. A stock company was formed in 1866 with a capital of \$60,000. Mr. Fowler's patents were secured, and the industry has since been conducted with success, giving work to about one hundred hands. The officers are: Carlos French, president and treasurer, and L. H. Bristol, secretary.

THE SEYMOUR MANUFACTURING CO., located on Franklin street, was incorporated in 1887 with a capital stock of \$450,000. This is among the early industries of Seymour, and the plant covers several acres of ground. The firm do an enormous business in the manufacture of German silver, brass, gilding, and bronze-sheet metals; also copper, brass and German silver rods and tubing. The firm give employment to several hundred hands. The present officers are: President, Charles H. Pine; secretary and treasurer, W. H. H. Wooster; assistant treasurer, George E. Matthies.

THE H. A. MATTHEWS MANUFACTURING CO. was organized in 1890 with a capital stock of \$30,000, for the manufacture of stove trimmings and brass goods. The officers are: President, James Swan; vice-president, Carlos French; secretary, George Matthies; treasurer and superintendent, Frank N. Beecher.

JAMES SWAN carries on quite a lively industry in the manufacture of mechanics' tools in great variety.

GARRETT & BEACH, a firm composed of Lewis L. Garrett and Samuel A. Beach, are engaged in the manufacture of German pattern bits, augers and gimlets.

HENRY P. and EDMUND GAY carry on the manufacture of hard or vulcanized rubber goods under the name of H. P. & E. Day. They make a large variety of goods in that line.

SHELTON BOROUGH is joined to Derby by an iron bridge over the Housatonic river. The factories of Shelton line one side of the river, while those of Derby are on the other side. The relations between the two communities are so closely identified that one board of trade serves for both. In business, social and religious life, Shelton and Derby are practically one. The thriving borough owes its existence to the dam across the river. Previous to the building of this by the enterprising water company, this was a farming district solely. The growth of Shelton since the introduction of this water-power has been phenomenal. There are about twenty-five factories located in Shelton, among them being The Derby Silver Company, Wilkinson Bros. & Co.'s paper-mills, The Birmingham Brass Company, Shelton Company's Bolt and Tack Works, Whitlock Machine Company, Radcliffe Bros.' Woolen Mills, Robert Adams' Cotton Mills, Silver-Plate Cutlery Company, Derby Rubber Company, and United States Reclaiming Company, a branch of the Birmingham Iron Foundry, The National Folding-Box & Paper Company, Star Pin Company, Wilcox & Howe Co., Birmingham Corset Company, and several smaller concerns. Shelton has exceptional facilities for transportation by both land and water.

THE BIRMINGHAM BRASS CO. was organized December 30, 1891, as the successor of the Osborne & Cheeseman Co., for years one of the largest industries in this vicinity. Having been conducted for more than half a century under the old name, it is one of the best known concerns in the brass trade. Upon the death of George W. Cheeseman in 1891, the Osborne & Cheeseman Co. discontinued business and the

property was divided, the Birmingham Brass Company taking the mills and property in Shelton. The new company has a capital of \$116,500, and has prospered from its inception, retaining much of the trade of its predecessor. The works comprise two acres of land, upon which stand eight substantial brick buildings. The rolling-mill is devoted to the production of brass for the tube, wire or cutting departments. They also manufacture sheet-brass upon orders. In the wire department there is turned out wire for pin manufacture. The tube-room supplies tubing for plumbers' use, and also brass tubing used in making metallic bedsteads. In another department, lamp burners, buckles of all kinds, chain, etc., are manufactured for the market. The company has been a successful competitor of English concerns in the manufacture of metallic tubing. Their business growth has been somewhat remarkable, and due in large measure to the present official head, J. B. Underwood, of New Haven, who was for many years the New York agent of the old company. The company employs between two hundred and fifty and three hundred hands. The officers elected in 1897 are: President, J. B. Underwood, New Haven; secretary, James H. Morton, Deep River; treasurer, Thomas Appleton, New York; superintendent, John A. Coe, Shelton; assistant treasurer, John E. Lewis, Shelton.

THE DERBY SILVER PLATE CUTLERY CO., whose factory is located on the canal bank at Shelton, manufacture a full line of silver-plated forged steel table cutlery, their goods ranking with the best of the kind made in the world. The concern was organized in 1883, and first commenced business in Bridgeport at that time. Two years later they erected their present factory, since enlarged, and removed thereto. Their equipment is an excellent one, and they give regular employment to about one hundred hands. The president and treasurer and general manager of the concern is James R. Brinsmade. The other officers are as follows: Vice-president, Morris B. Beardsley; secretary, G. A. Shelton; directors, Morris B. Beardsley, D. S. Brinsmade and S. A. Abbott. The capital stock of the company is \$60,000, and their success has been marked to such an extent that a surplus of \$30,000 has accrued.

THE DERBY RAZOR CO. is conducted in conjunction with the Derby Silver Plate Cutlery Company. This company, with a capital stock of \$15,000, purchased a complete plant at Fremont, O., which was moved here and now occupies the newly built portion of the Silver Plate Cutlery Company's factory. The concern manufactures one hundred and fifty different kinds of fine razors, with half as great a variety of razor strops. The officers are: David Eastman, New York, president; J. R. Brinsmade, manager and treasurer; Walter Randall, secretary. These, with J. C. Griffin and I. H. Peck, form the board of directors.

The new corporation of WILKINSON BROTHERS & CO., to carry on the manufacture of paper at the Derby Mills, was organized December 15, 1896. The concern will do business at Nos. 419 and 421 Broome street, New York, and will handle all of the goods manufactured at the Derby mills, now used by them. The firm has been established about thirty years, being well known as manufacturers of and dealers in paper and twine, and ranked as one of the oldest and largest houses in the trade. During the Harrison administration this concern had the contract to supply all of the postal-card stock. The business has now been incorporated on a joint-stock basis, under the same title, with a capital of \$80,000. The officers are: Edward T. Wilkinson, president; C. D. Wilkinson, vice-president; A. S. Wilkinson, treasurer; T. P. Wilkinson, general manager. The Derby mills give employment to one hundred and fifty hands.

One of the largest and best-known concerns engaged in the manufacture of bicycle forgings is the WILCOX & HOWE COMPANY, whose works at Shelton, since

starting in their new departure, have been taxed to their utmost capacity. The original industry, founded in 1870 by D. Wilcox, was that of making carriage hardware. Five years later the firm of Wilcox & Howe took the factory and continued the business for many years with marked success, gaining a national reputation for their goods. In 1891 a stock company was organized and the concern became incorporated under a state charter. The company has a paid-in capital of \$86,525, the executive officers being: John I. Howe, New York, president; George E. Wilcox, Port Chester, N. Y., vice-president; Isaac P. Howe, Derby, secretary and treasurer.

THE SHELTON CO. is one of the oldest concerns of the locality, and was established in 1836 under the firm-name of Sanford & Shelton. In 1841 the now late Edward N. Shelton purchased his partner's interest and continued the works alone. The company was organized as a stock company in 1854, of which Edward N. Shelton was the president, remaining at the head of the concern until his death, a few years ago. Under his leadership the company grew in prosperity, and has so continued to the present time. The large works turn out bolts, tacks and small nails, the product being sold to the hardware trade, the goods being used in all parts of the country. The company is capitalized at \$100,000, and a force of two hundred hands is employed. The officers of the company are: E. De Forest Shelton, president; F. W. Benham, treasurer, and F. S. Stanton, secretary.

THE NATIONAL FOLDING BOX & PAPER COMPANY'S factory No. 1 is located at Shelton, where, a few years since, this company purchased the extensive business and plant of the Cornell & Shelton Company. The paper boxes manufactured by this concern are used by about all of the leading patent-medicine concerns in the United States. At this factory employment is given to 200 operatives, the daily capacity of the factory being ten tons of paper boxes. The officers of the company are: D. S. Walton, president; T. L. Cornell, vice-president; H. S. Munson, secretary, and F. H. Benton, treasurer.

One of the largest button concerns in the United States is that of J. & G. GRIFFIN, located at Shelton. The business of this firm was established in 1846 at Botsford, Conn., by John Griffin, father of the present members of the firm. He invented the first cam machine for turning horn buttons. In 1890, owing to increased business and the invention of labor-saving machinery, the plant formerly owned by the Shelton Brass Hardware Company was purchased and the business removed to Shelton. The improvements of the Griffin Brothers in horn-button machinery enable them to lead all competitors in their line, having machines that will each turn out 3,500,000 buttons per month, or an increase of 600 per cent. over former methods. The factory gives employment to 75 hands.

One of Shelton's leading industries is that of the NORWEGIAN BOLT WORKS, owned by Dickerman M. Bassett, a wealthy resident of Derby. Many grades of bolts and nuts are manufactured at these works for the carriage and hardware trades.

THE WHITLOCK MACHINE CO., manufacturers of Whitlock printing presses and paper-cutters, is a leading Shelton industry, employing 200 hands, including many skilled mechanics. The business was founded by Sturges Whitlock, the inventor of the Whitlock press, and the present company was incorporated March 26, 1888, with a capital of \$105,000. The concern owns one of the largest factories in Shelton. The officers are: President, Sturges Whitlock; secretary and treasurer, Julius G. Day.

THE DERBY PLANE COMPANY, manufacturers of bench planes, was incorporated February 28, 1891, with a capital stock of \$15,000. The officers are: George D. Mosher, president and treasurer; Samuel W. White, secretary. This concern gives regular employment to twenty-five hands.

RADCLIFFE BROTHERS, manufacturers of woolen goods, occupy their own large and finely-equipped plant on Howe avenue, Shelton. The concern was incorporated January 1, 1894, with a capital stock of \$60,000, and gives regular employment to one hundred operatives. The officers are: E. M. Radcliffe, president; Fred. W. Radcliffe, secretary; Walter W. Radcliffe, treasurer.

One of the largest metallic bedstead concerns in the country is the WHITCOMB METALLIC BEDSTEAD COMPANY, which gives employment to two hundred and fifty hands. This concern occupies one of the largest factories on the Shelton canal, and is one of the busiest of local concerns. The company was incorporated January 1, 1892, with a capital stock of \$100,000. The officers are: Walter O. Whitcomb, president; Edward M. Oldham, secretary and treasurer. Hundreds of designs in brass and iron bedsteads are manufactured by the Whitcomb Company, and they find a ready market for their excellent goods in all parts of the country.

THOMASTON. — The history of clock-making in Naugatuck valley dates back to 1793, when Eli Terry, a native of East Windsor, settled in that part of Plymouth, now known as Terryville, and commenced the manufacture on a small scale. Mr. Terry was a man of good, natural ability and of progressive ideas, and had been under the instruction of Thomas Harland, of Norwich, a noted watch and clock-maker of that time. The story has gained credence from frequent repetition that Mr. Terry's first clocks were made entirely by hand; that he marked out the wheels on the wood with a compass and cut the teeth with a fine saw and a jack-knife, but this story lacks confirmation; indeed, it seems altogether improbable. No doubt the machines he used were few in number and crude in construction, being for the most part made with such meagre facilities as were at his command, but it is not at all likely that a man taught by so highly a skilled mechanic as Mr. Harland would undertake clock-making without, at least, a lathe and a wheel-cutting engine of some sort.

But if his means of production were limited, so was the demand for his product. It was not at that time safe to undertake the construction of more than three or four at one time, and even for that small number he endeavored to secure purchasers in advance. These clocks were made almost wholly of wood and sold for \$25 each, which was for the movement only. They were often hung up against the wall, the pendulum swinging beneath and the weights running to the floor, although such as could afford the luxury would provide a tall case as a protection from dust and dirt. There were no railroads in those days, and wagons were by no means common. It was not an uncommon occurrence to see Mr. Terry riding through the country with a clock strapped at each side of his saddle-bags and another behind the saddle, the dials in plain sight.

In 1797, Mr. Terry produced an equation clock that showed the difference between mean and apparent time, but for obvious reasons this kind of timepiece never came into general use.

In 1803, finding that the demand for his clocks had considerably increased, he, by the addition of machinery and the use of water-power, made provision to produce clocks by the thousand, an undertaking regarded so extravagant that he became an object of ridicule.

In 1806, Mr. Terry sold out to Heman Clark and bought a better water-power and more extensive buildings, and the following year commenced the manufacture of four thousand clocks at one time, on a contract with a firm in Waterbury. This undertaking, which was successfully carried out, gave a new impulse to clock-making and drew many competitors into the business.

In 1810, Messrs. Seth Thomas and Calvin Hoadly, employees of Mr. Terry, formed a partnership and purchased the factory and other property; they continued in business together until 1813, when they separated, Mr. Hoadly continuing in the old place—Hoadlyville, and Mr. Thomas moving to Plymouth Hollow, now Thomaston, where he commenced business alone. About this time Asa Hopkins, of the parish of Northfield, who had been making clocks in a small way, invented an engine for cutting wheels, which by the use of three mandrels, carrying cutters, greatly facilitated their production. This was followed by an invention by Mr. Terry, in 1814, that completely revolutionized clock-making. Up to this time clocks were cumbersome affairs, adapted to tall cases, which stood on the floor. Mr. Terry's invention was the short clock to stand on a shelf. Seth Thomas purchased the right to manufacture under this patent, and enlarged his factory to meet the increased demand. About 1840, the cheap brass clock was introduced which gave such an impetus to the business that it was found necessary to increase still further, and in 1854 the Seth Thomas Clock Company was formed, with a capital of \$75,000, with Seth Thomas as president, and Edward Thomas as treasurer. The capital stock was subsequently increased to \$600,000, and their product embraces everything in the line of clocks, including tower clocks and astronomical clocks. In 1884, a large building was added, and the production of watches was commenced. They now make upwards of one hundred different kinds of clocks, some sixty odd styles and grades of watches, besides many special devices, as time-lock movements for bank vaults, measuring and registering machines, and cyclometers for bicycles. The officers are: William T. Woodruff, president: and Seth E. Thomas, treasurer, the latter gentleman being grandson of the founder of the company.

TORRINGTON.—The early manufactories of Torrington, then Wolcottville, were engaged in producing American cloths, the first establishment being that of James Wolcott, in 1813. At this time, as fine a quality of goods were made at this mill as were turned out anywhere in the United States. The mill and business changed hands a number of times before 1833, when it became The Wolcottville Manufacturing Company. This woolen mill continued business until 1844, when it was burned to the ground. A new mill replaced it later, and the business was continued, and in 1851 the name of the company was changed to the Torrington Manufacturing Company. In 1853, the mill changed hands, and the Wolcottville Knitting Company succeeded it. The company manufactured a variety of worsted and woolen goods.

While Torrington to-day has large industries in this line of business, the largest concerns are those engaged in the manufacture of brass, iron and steel products.

THE EAGLE BICYCLE COMPANY is a latter-day industry, but is now recognized as one of the most important in the town. This company located in Torrington in 1891, having previous to that time been doing business in Stamford, Conn., for three years. New factories were built in Torrington and the company started on an era of prosperity. Before the advent of the now universal type of safety bicycle, this company made the Eagle high wheel, for use by conservative riders. The liability of headers was eliminated by placing the small wheel in front, this result being accomplished without the use of either gears or clutches.

With the appearance of the safety bicycle the company began to make a high grade wheel of that type. During the year 1895 The Eagle Bicycle Company built a new factory especially designed for the manufacture of their wheels. The factory is located on the line of the Naugatuck road, and has its own gas and electric-light plants. In the Eagle wheel the cold-swaging process is extensively applied. The

company is producing twenty thousand wheels a year, and three hundred hands are given steady employment. The company started with a capital stock of \$50,000, but it was doubled soon after moving to Torrington. The officers are: President A. F. Migeon; vice-president, Elisha Turner; treasurer, E. S. Walsh; secretary and agent, C. S. Dikeman.

THE COE BRASS COMPANY, a world-wide known concern, was organized in 1863, when L. W. Coe bought all the stock of the Wolcottville Brass Company. The new company was capitalized at \$100,000, and the mill and real estate of the old company were transferred to the new one. The first attempt to make brass kettles in this country by the battery process was in 1834, when Israel Coe, Anson G. Phelps and John Hungerford established this business. They met with many obstacles at first, but, finally, began to prosper. The rolling mill of the concern was a thriving institution until 1837, when there was a general suspension of business all over the country. This company, like all the others, was affected and found it hard struggling for a time. On May 19, 1841, the special copartnership was dissolved, and the Wolcottville Brass Company was organized. This company was successful until 1852, but from that date the property and business declined steadily until 1863, when the present company was formed. The Coe Brass Company at once went to the front in the manufacture of brass wire and German silver. In 1873, or thereabouts, the Coe Brass Company made a specialty of brass for small arms, cartridges, etc., and for years had a large foreign trade. The mill property covers nineteen acres of ground. The company employs several hundred hands. The capital stock is \$325,000. The officers are: President, C. F. Brooker; treasurer, E. T. Coe; secretary, James A. Doughty.

HOTCHKISS BROTHERS & CO.'S WOOD-WORKING ESTABLISHMENT.—This establishment, located in the thriving village of Torrington, is one of the representative institutions of its kind in New England. It has grown from small beginnings into the present immense establishment; and this result has been attained not by any mere luck, but by the intelligent application of business principles to the end in view. Their buildings are fully equipped with all modern labor-saving devices, by which they are enabled to compete with other large concerns which have grown up in more advantageous locations; and wherever the goods of this establishment are specified, they show an improvement over any other in the market. In addition to general wood-working departments, the business of the firm includes contracting and building; and in this branch also they have earned a justly-merited reputation for energy and skill. The firm consists of E. C. Hotchkiss, H. E. Hotchkiss, and E. H. Hotchkiss.

THE UNION HARDWARE CO. was organized January 1, 1864. A year and a half after beginning business a large factory was built on the Naugatuck river. The original stock owners were George B. Turrell, Franklin Farrel, and A. F. Migeon, and the capital was but \$12,000. The company was organized for the manufacture of skates of all kinds. In February, 1872, the skate-manufacturing business of Frederick Stevens, of New York, was purchased, and at this time the company erected a three-story building, one hundred feet long by forty feet wide. The output is 750,000 pairs of skates per year, and employment is given to over four hundred hands. Beside skates the company manufacture gun implements, dog collars, police goods, tackle blocks, and do a general wood-turning business; they also make soldering coppers. The officers are: President, A. F. Migeon; secretary and general manager, T. W. Bryant.

THE EXCELSIOR NEEDLE CO. was organized March 2, 1866, the original capital being \$20,000. It has since been steadily increased to an authorized capital of

\$1,000,000, but only \$400,000 is issued. About six hundred hands are employed. The product of this concern is machine needles, knitting needles, the McKay needle, and bicycle spokes and nipples. Until 1893 the business was conducted as a partnership, the owners of the patents for making needles by the cold-swaging process being members. To this patent the company owes almost entirely its success. The Excelsior Needle Company occupies a large new factory not far from the railroad station. The company for many years had the contract for furnishing needles to the Wheeler & Wilson Company, of Bridgeport, and other sewing machine concerns that did not make their own needles. For a time 150,000 needles per month were furnished the Wheeler & Wilson Company alone. The cold-swaging process reduces the wire without heating, annealing or grinding, or any other similar process. The officers of the company are: President, A. F. Migeon; secretary, J. F. Alvord; treasurer, Charles Alvord.

THE NEW PROCESS NAIL CO. was organized in December, 1891, and has a capital stock of \$100,000. Their product is solely cold-swaged horse-shoe nails. The company is located near the Eagle Bicycle Company. The officers are: President, A. F. Migeon; secretary and treasurer, W. N. Clark, Jr.

THE WARRENTON WOOLEN CO. dates back to 1845, although it has not always been known by that name. The business was begun by the Union Manufacturing Company, having a capital stock of \$10,000, for the manufacture of black doeskin cloths. They now make uniform cloths of all kinds, carriage cloths, and kerseys for overcoats. The capital stock of the company is \$50,000, and eighty hands are employed. The officers are: President, George D. Workman; secretary, S. C. Workman; treasurer, John Workman.

THE TURNER & SEYMOUR MANUFACTURING CO. is the successor of the Wadhams Manufacturing Company, which was first organized in 1838 under the name of Wadhams, Webster & Company. After twelve years of successful business the company changed its name to the Wadhams Manufacturing Company, and made its capital stock \$20,000. The company closed its business at the beginning of the war. In 1863 some of the members of the Waterbury Hook and Eye Company formed another concern and purchased the property. This concern was called the Seymour Manufacturing Company, and a specialty was made of brass window trimmings of all kinds. In 1866 the Turner & Seymour Manufacturing Company succeeded to the business, adding an iron foundry to the plant. The company make sheet brass goods and various articles of iron and bronze, including upholstery hardware, curtain rings, picture hooks, furniture nails, and a great variety of other articles. About three hundred hands are employed. The capital stock is \$100,000. The officers are: President, Elisha Turner; secretary and treasurer, L. G. Turner; assistant secretary, Frank M. Travis.

THE COE FURNITURE CO. was formed in 1870 with a capital of \$20,000. Furniture was first manufactured in the town in 1840 by Henry P. Coe, Henry Ostrum, and Benjamin Smith. In 1860 Mr. Coe's sons acquired the business which was known as A. W. Coe & Bros., until the present company was organized. They make chamber sets, bureaus, chairs, sofas, extension tables, and other articles in this line. The officers are: President, G. D. Workman; treasurer, John Workman; secretary and manager, Frank E. Coe.

THE HENDEY MACHINE CO. was not organized until August 22, 1874, although Henry J. and Arthur Hendey, brothers, began the business in a small shop in 1870. It grew steadily and a new factory was finally built just south of the Coe Brass Company's plant. They are builders of all kinds of iron-working machine tools, lathes,

planers, etc. About two hundred and thirty hands are employed, and the present capitalization is \$60,000. The officers are: President, Henry J. Hendey; secretary and treasurer, F. F. Fuessenich.

THE TORRINGTON MANUFACTURING CO. are manufacturers of upholstery nails and a general line of brass trimmings for curtain poles. They make a specialty of light machines. Fifty hands are employed. The company was incorporated in 1885 and has a capital stock of \$25,000. The officers are: President, James A. Doughty; secretary, R. C. Swayze; treasurer, E. T. Coe.

THE TORRINGTON SURGICAL APPLIANCE CO. has a capital stock of \$10,000. Trusses and supporters are the products of the concern. The treasurer and secretary is Dr. B. St. John.

WINSTED.—The manufacturing concerns of Winsted have stood the test of years and have grown steadily, proving great benefactors in the building-up of this thriving village at the head of the Naugatuck Railroad. The principal manufacturers are workers in metal goods, cutlery, undertakers' hardware, and similar articles. Its hosiery concerns have also made a name for the village far and wide, and more common pins are made in this village probably than in any other single place in the country.

Among the largest corporations of Winsted is the STRONG MANUFACTURING COMPANY, which was incorporated in 1866, with a capital of \$16,000. The capital was gradually increased to the present figure, \$100,000. The company manufacture a complete line of undertakers' goods, including both hardware and cloth material. The concern occupies a large four-story factory, and have recently almost doubled its capacity by the erection of a four-story front and five-story rear building. The offices of the concerns are commodious, their factory throughout is equipped with modern conveniences, and they have both steam and water-power. A twenty-five horse-power steam engine, and a forty horse-power water wheel supply the power. The company employs one hundred and twenty-five operatives. The officers are: President, David Strong; secretary and treasurer, Harvey L. Roberts; agent, H. G. Colt.

THE NEW ENGLAND PIN CO. is the largest pin manufactory in the country, their sole product being common pins, put up in boxes. The company make their own boxes. The business was first established in 1854, but the company was not incorporated until 1857. The capital stock is \$100,000, and one hundred operatives are employed steadily. The officers are: President, G. W. Curtis, New Haven; secretary and treasurer, Jay E. Spaulding.

THE NEW ENGLAND KNITTING CO. is a prosperous corporation, engaged in the manufacture of men's underwear. They formerly made ladies' underwear, but this branch of the business was discontinued. The company was incorporated in 1887, with a capital stock of \$50,000. Originally a factory was rented from the New England Pin Company, but in 1895 a large, four-story building, one hundred and six feet by forty feet, was erected, and also a brick dye-house. Starting with but four sets of machines they increased to nine sets in 1896, and employed one hundred and twenty-five hands. The officers are: President, Henry Gay; secretary and treasurer, E. B. Gaylord; general manager, L. W. Tiffany.

THE WINSTED HOSIERY CO. is another large concern engaged in the manufacture of regular-made underwear, and also seamless half hose. The company was incorporated in 1882, with a capital stock of \$50,000. About one hundred and fifty hands are given employment. The officers are: President, David Strong; secretary and treasurer, E. B. Gaylord.

THE WINSTED SILK CO. was incorporated in 1883, and is capitalized at \$150,000. They make machine and silk twist and employ one hundred and fifty hands. The business was established in 1874 as a copartnership. The officers are: President and treasurer, Eugene Potter; secretary, Harvey L. Roberts; superintendent, J. J. Lawler.

THE WINSTED SHOE CO. was first established as the Cross Shoe Company, and has proven prosperous. Its original capital stock was \$50,000, but in 1896 was \$55,000. In 1890, the name of the company was changed to The Winsted Shoe Manufacturing Company, and again in 1892 to its present name. They make a medium fine grade of men's, misses' and children's shoes, and the capacity of the plant is one thousand pair per day. About one hundred and twenty-five operatives are employed. The officers are: President, David Strong; secretary and treasurer, W. H. Williams.

THE FRANKLIN MOORE CO. was organized in 1883 with a capital stock of \$110,000. The company makes carriage bolts and wood screws. The officers are: President, Ralph N. Moore; vice-president, W. H. Taylor; secretary and treasurer, J. H. Whiting.

THE WINSTED EDGE TOOL WORKS is one of the oldest concerns in the Naugatuck valley, having been organized in 1863 as the Winsted Hoe Company, for the manufacture of planters' hoes. This was their specialty, until after the war the demand for the line of goods entirely died out. The Winsted Hoe Company purchased the business of a concern in Massachusetts which was engaged in the making of carpenters' tools, chisels, drawing knives, gouges, etc., and, moving the business to their Winsted factory, continued in this line of business. The name of the company was changed to that which it now bears and it was capitalized at \$30,000. About fifty hands are employed. The officers are: President, Henry Gay; treasurer and agent, C. E. Jopp; secretary, C. S. Foster.

The business of the EMPIRE KNIFE COMPANY dates back to 1856, although the company was not incorporated until January 1, 1890. From 1856 to 1890 it was the Beardsley & Alvord Company. The present capital stock is \$40,000. The product of the concern is pocket cutlery, corkscrews, manicure goods and other specialties. About fifty operatives are employed. The officers are: President, C. L. Alvord; vice-president, G. S. Alvord; secretary and treasurer, S. L. Alvord.

An industry dating back more than half a century is the GEORGE DUDLEY & SONS' COMPANY, tanners. The company was established in 1831 and was incorporated in 1892 with a capital stock of \$125,000, but only \$80,000 had been issued in 1896. They make bookbinders' material and piano leathers. Employment is given forty-five hands. The officers are: President, W. T. Batcheller; secretary and treasurer, Andrew Fox.

THE WINSTED METALLIFORM CO. was organized May 22, 1894, with a capital stock of \$42,000. Although but a year and a half old at the time of this sketch, it is recognized as one of the successful industries of Winsted. The company manufactures upholstery, brass hardware, sheet metal and wire articles of all kinds, and employs thirty-five hands. The officers are: President, J. L. Carson; secretary, F. K. Phillips; treasurer, L. J. Hopkins.

THE WINSTED OPTICAL CO. was organized July 1, 1891, for the manufacture of gold spectacle and eye-glass frames, gold-filled spectacle and eye-glass frames, gold, silver, German silver and aluminum thimbles. They also make their own cases for spectacles and eye-glasses. About thirty-five hands are employed. The business was established in 1885, the capital stock being \$10,000. When incorporated this was increased to \$30,000, and two years later was again increased to \$45,000. The officers are: President, James McAlpin; secretary and treasurer, F. A. Clark.

THE WINSTED MANUFACTURING CO. was incorporated in 1835 and has a capital stock of \$25,000. The company make scythes, hay knives and corn knives. The officers are : Secretary, Allen H. Norton ; treasurer and agent, J. H. Norton.

THE WILLIAM L. GILBERT CLOCK CO. was incorporated in 1871. The capital stock is \$100,000. The officers are : President and treasurer, Isaac B. Woodruff ; vice-president and general manager, George B. Owen ; secretary, James G. Woodruff.

THE HENRY SPRING COMPANY was incorporated in 1869. The capital stock is \$40,000. The officers are : President, E. P. Wilcox ; secretary and treasurer, T. W. Alvord. The product is carriage springs of all kinds.

THE MORGAN SILVER PLATE COMPANY are manufacturers of casket hardware and undertakers' supplies. The company was incorporated in 1887 and has a capital stock of \$25,000. The officers are : President, J. E. Spaulding ; vice-president, Henry Gay ; secretary and treasurer, Salmon A. Granger ; general manager, James T. Morgan.

THE T. C. RICHARDS HARDWARE COMPANY was organized in 1874, and has a capital stock of \$75,000. They make curtain-pole trimmings, table cutlery, steel knives, etc. The officers are : President and treasurer, T. C. Richards ; secretary, Cecil B. Jenkins.

THE WINSTED YARN COMPANY, organized in 1890, is a copartnership. As its name indicates, its product is yarn.

TERRYVILLE.—THE ANDREW TERRY CO., Manufacturers of Malleable Iron Castings. This establishment is among the pioneers of the malleable iron industry in the United States, and has grown from a shop forty feet square with one air-furnace and three small annealing kilns, each having twenty-four pots capacity, all operated by twenty-five men, into a plant covering an area of about one and one-half acres, giving employment to about one hundred men and producing a daily output of nearly two tons of a superior quality of malleable iron castings, which vary in weight from those so small that two gross weigh less than a pound, to others which weigh three pounds each.

Ground was broken for this foundry November 24, 1847, by Andrew Terry, a brother of James Terry, the first president of the Eagle Lock Company, and the second son of Eli Terry, 2nd. The latter gentleman was the son of Eli Terry, the first manufacturer of clocks in this country and the founder of the village of Terryville, Conn. Little was known about the process of making malleable iron at that time, and the new concern struggled for existence for a good many years, during which time Mr. Terry gathered around him men of practical ingenuity, business ability and good sense, and in 1860 he associated with himself O. D. Hunter, who had learned the business in his employ, and R. D. H. Allen, who came from a clerical position in the Eagle Lock Company's office. These three men formed a joint stock company under its present name with a capital of \$16,000, afterwards increased to \$20,000. In 1871 Mr. Terry sold his interest to his partners and went to Kansas. His successors admitted into the company N. Taylor Baldwin, a brother-in-law of Mr. Terry, and J. W. Clark, the latter having been trained in the company's employ. In 1875 R. D. H. Allen returned to the Eagle Lock Company, and N. Taylor Baldwin succeeded to the financial management until his death in 1889.

Mr. Baldwin was succeeded by J. W. Clark as secretary and treasurer of the corporation until his sudden death by heart failure February 3, 1896. The directors then elected Edgar L. Pond secretary and Charles Purrington treasurer until the next annual meeting. At the annual meeting of the stockholders, October 24, 1896,

the following-named gentlemen were elected directors of the corporation, viz., O. D. Hunter, Charles Purrington, Edgar L. Pond, George C. Clark and Richard Baldwin. These directors elected the present officers of the company, viz., O. D. Hunter, president; George C. Clark, secretary; Edgar L. Pond, treasurer. At this meeting it was voted to change the name of the corporation to "The Andrew Terry Co."

SOUTHINGTON.—THE PECK, STOW & WILCOX CO. The evolution of this company has occupied nearly a century. It dates from the time when Seth Peck, son of Capt. David Peck of Southington, first became interested in making tinnern's machines. Attempts to fix this precise date have been unsuccessful. Some time between 1810 and 1819 seems to be the probable time when the industry was taken up by Peck. But, though he was practically the organizer of the firm which still perpetuates his name, the inventions which made its organization possible were not originated by him.

These have been ascribed to Edward M. Converse. So far as their practical development was concerned, Converse was the father of these improvements. But the real pioneer of the idea was a man named Parsons, of Bristol.

Tinware became a prominent article of manufacture in Southington as early as 1795. At that time it was shaped by hammering with wooden mallets over peculiarly-shaped anvils called stakes. Parsons conceived the idea of swaging it by passing it through steel rolls. The various experiments and failures made by Parsons are mere matters of tradition, and are not clearly known. It was not until Edward M. Converse took up Parsons' ideas and improved upon them that the industry of tinnern's machine-making assumed commercial importance. Converse was a comb-maker by trade. He married Phila Peck, a sister of Seth Peck. Converse first invented and patented a process of pressing and rendering transparent horses' hoofs and other corneous substances. This was patented in 1812.

He had become interested in tinnern's machines before this, and in 1819 had developed the first machine for making tinware ever patented in this country. This was patented by Seth Peck. It was not until 1831 that Converse perfected and patented what is known as the regular set of tinnern's machines. These have since been improved in various details, but the essential shape of the steel rolls used in swaging the metal has not been changed.

As has often been the case, the inventor shook the bush and the capitalist caught the bird. In 1832 Converse sold to Seth Peck and Romeo Lowrey his shop and water-power on the Quinnipiac, together with all the tools for casting and making tin machines there or elsewhere. This shop and power were near the large elms beside the lane leading west from the present residence of Henry Lowrey.

Seth Peck, Romeo Lowrey, and perhaps others, formed a partnership, and commenced the manufacture of tinnern's machines at a shop on Berlin avenue, opposite the rear of the grounds now occupied by the Methodist Church. This was the beginning of the firm of the Peck, Stow & Wilcox Co.

As steam-power had not yet come into general use, and Peck had no water-power at his shop, the first turning lathe was run by means of a hand-wheel, turned by Dr. Josiah Root, who had been a surgeon in the army in the War of the Revolution. Later, the turning was done by Cromwell Newell at a small water-power in South End, and the parts carried back and forth in a market basket. From these small beginnings the evolution of the company was rapid.

Orrin and Noble Peck, a brother and nephew of Seth Peck, for a short time carried on the business. The firm of Seth Peck & Co. was later changed to Peck,

Smith & Co., by the accession of Wyllys Smith, a nephew of Seth Peck. As early as 1845 the machines of Peck, Smith & Co. were known in nearly every tinner's shop in the United States.

In 1849 the company took in a man who, probably more than any other single man, has contributed to the manufacturing industries of Southington. This was Roswell A. Neal, who came from Bristol, bringing the business of steel-yard making. Possessing quick perceptions, shrewd judgment, prodigious memory and untiring industry, he soon proved the leading man in the concern. One new article after another was added to the line of manufacture. In 1861 R. A. Neal was appointed president of the company, and from that time until 1887, when failing vigor, due to overwork, compelled him to relinquish active life, was the principal manager of that firm and its successor, the Peck, Stow & Wilcox Co.

In the meantime competition had arisen. Solomon Stow, a clockmaker by trade, who had worked for Peck, Smith & Co., commenced the manufacture of tinner's machines in a shop situated on a water-power near the present depot at Southington.

The rapid growth of the country gave a lucrative business to both these firms, and in 1853 S. Stow & Co., which had been first made S. Stow & Sons, and afterwards, by the accession of Dwight, Twichell, and Samuel P. Shepard, S. Stow & Co. became a joint stock company, and removed to Plantsville. Wyllys Smith and Romeo Lowrey were crowded out of the old firm, and took stock in the new. Another competitor arose in Berlin. The Roys & Wilcox Company established the manufacture of tinner's machines on the Matabessit river in East Berlin in 1847. For fifteen years following 1855 these three companies were rivals for the trade in tinner's machines throughout the Union. Competition was fierce, prices were forced down, and the business which had built up three powerful concerns threatened to be their ruin.

Orsen W. Stow, a son of Solomon Stow, turned his inventive genius to the improvement of tinner's machines, and after repeated trials and many discouragements brought out and patented a set of machines which revolutionized old methods. Much money and time were spent in introducing these improvements, but at last they proved popular and swept the field. But they had cost so much that the Stow Manufacturing Company found itself crippled in its resources. All its capital and surplus were invested in real-estate, and tools and machinery; for its working capital it had to depend on borrowed money. At this juncture Samuel C. Wilcox, president of the Roys & Wilcox Company, conceived the idea of consolidating the three concerns. At first his scheme was thought by the other concerns impracticable. His logic, combined with the logic of events, at last prevailed. The three companies formed a joint-stock company, under the name of the Peck, Stow & Wilcox Company, each of the firms transferring its property to the new firm at a valuation agreed upon, and the stockholders in each agreeing to accept stock in the new company in exchange for their old stock surrendered. The new company was organized November 1, 1870. Its capital stock was at first \$500,000; was increased in 1871 to \$635,000, again increased to \$700,000 in 1874, and in 1880 was raised to \$1,000,000. Prior to this date Marcellus B. Wilcox and Augustine R. Treadway, assisted by other capitalists, established the manufacture of tinner's tools and machines, wrenches and scale-beams in Cleveland, Ohio, under the name of Wilcox, Treadway & Company. In 1881 this concern was absorbed by the Peck, Stow & Wilcox Company, and its capital was increased to one and a half millions.

The discovery of natural gas and the development of manufactures in the South and West necessitated the removal to Cleveland of some articles made in the East and the abandonment of others. In consequence of this abandonment a plant in Kensington and another in Birmingham were sold, and the proceeds of the sales, by vote of the stockholders, was used in the purchase and retirement of \$100,000 of the capital stock, leaving its present capital \$1,400,000. The corporation was chartered by the General Assembly in 1880. It now ranks among the largest hardware manufacturers of the Union. Its principal articles of manufacture are: mechanics' tools, housekeeping implements and shelf hardware. Its officers in 1897 are: President, Enos E. Stow, Plantsville, Conn.; vice-president, Augustine R. Treadway, Cleveland, Ohio; treasurer, Stephen Walkley, Southington, Conn.; secretary, Edwin N. Walkley, Southington, Conn.; New York managers, Webster R. Walkley, Brooklyn, N. Y., S. Howard Wilcox, New York city.

CHAPTER LXXXVI.

MANUFACTURING INTERESTS—Continued.

HE thriving city of Meriden, which has acquired the sobriquet of "The Silver City," is located midway between the cities of Hartford and New Haven, and on the main line of the New York, New Haven and Hartford railroad. There are very few cities in the United States that have come into such prominence as Meriden, owing to the extensive variety of its manufactures. It has not only gained much significance in the commercial world, but its products can be found in every community throughout the civilized world. Perhaps no city throughout New England has had a more phenomenal growth within the past few years, by reason of its magnificent attainments in the line of manufacturing. Among the leading industries might be mentioned the manufacture of silver-ware, table cutlery, gas-fixtures, cabinet hardware, cut-glass goods, guns, organs, lamps, chandeliers and metal art goods.

Meriden was originally a part of the town of Wallingford, and was set off from the parent town in 1806. What is now the business centre of the city was then known as "Pilgrims' Harbor," a designation given as early as 1661. This portion of the settlement then numbered over one-third of the population of the town, and the people, then feeling that they were destined to outgrow the parent settlement some six miles further south, sought to be set apart from Wallingford, which they accomplished. In June, 1806, the first town meeting was held, and from that time on the people have been imbued with indomitable energy and business tact, which have attained the present result.

The scenic attractions in and about the city are among the finest in the state. The range of hills on the west, known as "The Hanging Hills," attract the visitors' attention at once by the very graceful abruptness and boldness with which they tower far above the city. To the summit of the highest point the height attained is about 1,000 feet above the waters of Long Island Sound. In and about these hills are to be found the most charming drives and enchanting scenery.

The city of Meriden was incorporated in 1867. It was then a town of about 8000 inhabitants, and to-day the population is computed to be over 30,000, while the grand list of the city is over \$11,000,000. The spiritual and educational interests are not forgotten. There are twenty-two churches within its borders, all of which are prosperous, both spiritually and financially. Within the city boundaries there are six school districts, three of which have found it necessary to erect branch school buildings to accommodate the pupils. A splendidly-equipped High School building, costing \$100,000, stands as a superb monument to a free educational system. In addition to these, there are numerous private and parochial schools.

THE BRADLEY & HUBBARD MANUFACTURING COMPANY is an outgrowth of one of the early industries of the town, and stands to-day one of the most important factors in the city. The year 1852 marked the inception of this great enterprise, when a joint-stock company was formed under the name of Bradley, Hatch & Company, with a capital of \$5,000. So rapidly grew the business that after two years more capital and a larger plant became an imperative necessity. A new company was organized by William L. and Nathaniel Bradley and Walter Hubbard, under the name of Bradley & Hubbard. The property of Bradley, Hatch & Company was purchased, and a large business was permanently located where the immense factory now stands.

In 1862 another change was made. Nathaniel L. Bradley and Walter Hubbard bought out the interest of William L. Bradley. The business was continued under a copartnership until 1875, when a joint-stock company was again formed, taking the name of The Bradley & Hubbard Manufacturing Company. By this last change C. P. Bradley, son of Nathaniel L. Bradley, and Charles F. Lindsley were admitted as stockholders and directors, and the capital stock increased to \$300,000. Since the formation of the company under its present title, the following officers have continuously served to the present time: President, Walter Hubbard; treasurer, Nathaniel L. Bradley; secretary, Charles F. Lindsley.

Their manufacture is in the line of chandeliers, piano lamps, brackets, banquet lamps, bordeaux lamps, table lamps and hanging lamps, in almost countless variety, in brass, bronze and wrought iron, to all of which is attached the celebrated B. & H. burner. They also manufacture oil stoves in great variety. Their line of gas and combination gas and electric fixtures is produced in brass, bronze and wrought iron, and comprises what is conceded the finest goods in this line, both in artistic design and finish, made in the country. In addition to the above, in another department, are made bronze statuary, bronzes, brass tables with onyx, stationers' art goods, clocks in ornamental iron cases, taking the place of the expensive French clocks, brass and wrought-iron andirons, fenders and fire sets, and a great variety of elegant ware both in brass and bronze, which cannot readily be classified, are among the daily productions of their immense plant. When taken into consideration that the first factory, consisting of a small wooden building, without power and but a complement of less than a dozen hands, has grown year by year until developed into a large group of substantial brick buildings, the area of whose floor space is equal to about seven acres, and giving employment to about one thousand five hundred operatives, it fully demonstrates the active business ability and enterprise of Messrs. Bradley & Hubbard. The growth of this concern has certainly been phenomenal.

Their goods have a large and ready sale, not only throughout the United States, but foreign countries as well. Offices and salesrooms are maintained in New York, Boston, Chicago and Philadelphia. The most improved machinery is used in their factory plant, and the closest attention is given to produce the best manner of work

and in the highest style of art. The showroom of the Bradley & Hubbard Manufacturing Company is one of the handsome and interesting places to which visitors to Meriden are taken and to which the townspeople point with pride. Both Mr. Bradley and Mr. Hubbard are largely associated with other business institutions both in and out of Meriden.

C. ROGERS & BROTHERS, manufacturers of silver-plated ware, are, perhaps, as well known throughout the country as any manufacturing concern, and none stand higher, either at home or abroad, than they in the quality of their products. The firm is composed of three brothers, Cephas B. Rogers, Gilbert Rogers and Wilbur F. Rogers. Two of the firm have been connected with the silver-plated ware business in various ways for over forty years, and consequently have a thorough knowledge of the business in every detail. The present firm was organized in 1866, starting on a small scale, the three brothers doing most of the work with their own hands in a small building, with but two or three men to assist them, until to-day they have one of the finest equipped factories in their line of business in the country and give employment to several hundred hands. They manufacture only the highest grade of goods, and as it has been found that they can be relied upon, have met with a ready sale not only at home, but abroad, and their export trade is increasing each year. They have had many imitators, but no superiors, and the genuine imprint of their name on silver-plated goods is a sufficient guarantee of their standard.

This firm, whose goods find a ready market in every quarter of the globe, do not confine themselves to the manufacture of table ware. They are one of the largest producers of silver-plated casket trimmings and undertakers' supplies, also a full line of furniture hardware, including drawer-pulls and knobs, hat-pins, etc. These goods, put on the market by this firm, are considered superior to any.

They have established salesrooms in Chicago, St. Louis, Baltimore, San Francisco and Grand Rapids. The individual members of this concern are well known in trade circles, and each has identified himself with the interests of Meriden, and all have been active in almost every worthy object.

THE ÆOLIAN CO., manufacturers of self-playing musical instruments and music, was organized in 1887 with a capital of \$225,000. Their factory is located on Tremont street, corner of Cambridge, and a large force of hands are daily employed. The present officers are: James Morgan, president; John C. Schooley, treasurer; H. B. Tremaine, general manager; S. Herbert Chase, secretary and superintendent of factory.

THE AMERICAN AUTOMATIC LIGHTING CO. is one of the younger industries of Meriden, but none the less in the matter of importance. The company is a joint-stock corporation, organized in March, 1893, with a capital of \$50,000. Less than four years ago this "New Light" was almost unknown, but it has since grown rapidly in favor, and is now in practical use throughout the United States. The system consists of an entirely new method for utilizing hydro-carbon oil, eliminating objections to oil lights and substituting all the conveniences of gas, securing perfect combustion combined with wonderful brilliancy of flame. The new light is simple, practical, effective and economical. The oil is supplied from a small central reservoir through tubes direct to burners, which may be located, to suit convenience, to any part of a building. The flow of oil is conducted on the syphon principle, by force of gravity; the burners used in this system are similar to the Argand gas burners. The new light is capable of being applied wherever gas can be conducted, and the fixtures employed are practically the same and similarly operated. The company gave a fine exhibition at the World's Fair, Chicago. The present officers are:

Lyman T. Lawton, president; E. A. Lawton, vice-president; Frederic A. Cody, secretary and treasurer.

THE J. D. BERGEN CO. is another of Meriden's younger corporations, having been organized and incorporated since 1891. The capital stock is \$60,000. Their factory, located in Miller street, is a large plant. The main building is four stories and a half high and 153 feet in length. The product of this concern is fine cut-glass ware of almost every description, and their trade extends throughout the United States. A few years ago, people of moderate incomes were unable to indulge in the luxuries of cut-glass for table or ornamental use on account of the cost. The J. D. Bergen Company have, by the use of improved machinery, perfected methods, and a thorough knowledge of the business succeeded in placing these articles of the cut-glass workers' art within the reach of all, so that the tables and sideboards of those of moderate means may look as resplendent as those of their more fortunate neighbors did in the past. The general management of the plant is under the watchful eye of Mr. J. D. Bergen, who constantly exercises the strictest supervision over the most minute details. The present officers are: James D. Bergen, president and treasurer; Charles E. Stockder, Jr., secretary; William R. Eliot, general agent.

THE E. A. BLISS CO., incorporated August, 1882, with a capital of \$50,000, is quite an important factor in Meriden's manufactories. This company produce small novelties in nickel silver-plated ware, and give employment to about one hundred skilled operatives. Among some of the novelties of their production are match-boxes, postage-stamp boxes, bonbonieres, playing-card cases, calling-card cases, button hooks, chain purses, shoe horns, chatelaines, flasks, soap boxes, knives, etc., etc. As their wares are as a general thing short-lived, new patterns and designs are constantly put forward.

THE MERIDEN STERLING CO., an offshoot of the E. A. Bliss Company, though it remains a distinct part of it, is the only plant which manufactures strictly sterling goods in this city. The younger company turn out the same class of novelties as its parent, but in sterling silver only. The product of the company has a strong foothold with the trade, and the demand for their output is steadily increasing. The officers of this concern are prominent citizens of Meriden. Edgerton A. Bliss is president, and Clarence E. Palsey, secretary and treasurer.

THE MERIDEN CUTLERY CO. ranks among the larger cutlery manufacturers in this country, and from the superior quality of goods put out by this concern they have gained a national reputation. This company was organized in 1855, and is capitalized at \$400,000. Their plant is located in South Meriden, just outside the city limits, and covers several acres of ground. The buildings are fitted out with appliances for turning out as perfect work as any in the country, and probably no concern has a more skillful set of employees in all its branches. They employ about three hundred operatives. The plant is run exclusively by water-power. They own one of the finest water privileges in the state, and it is a rare thing that they are unable to run on account of the scarcity of water. They manufacture table-knives, forks, butcher and carving-knives, etc., with cocobola, rubber, bone, ebony, stag, ivory, pearl, walrus, celluloid, solid steel, hollow steel and German-silver handles, the line covering everything wanted in these goods. The company maintain an office and show-room in New York. The officers at the present time are; President, Aaron L. Collins; treasurer, George M. Howell; secretary, Homer A. Curtis.

THE WILCOX & WHITE ORGAN COMPANY are probably as well known in the musical trade as any concern in their line. The company was organized in 1877, and has a capital of \$250,000. The plant, which is located on Cambridge street, is

an imposing structure, giving employment to about two hundred hands. The Wilcox & White organ stands among the most celebrated reed instruments. The development of the reed organ to its present state is largely due to the practical knowledge of W. H. White, the pioneer organ-builder. One of the important inventions of this company is their "Pneumatic Symphony," or self-playing organ. This instrument has the feature of an ordinary organ and can be used as such. It is also supplied with mechanism whereby perforated paper is used as a medium for automatic playing. By virtue of this, and using the pedals and stops, the most intricate and beautiful music is produced without touching the fingers to the key-board. The company spares neither money nor effort to place their product before the public. The present officers, all prominent residents of Meriden, are as follows : James H. White, president and treasurer ; F. E. Bemis, secretary ; Howard White, superintendent.

THE MERIDEN MALLEABLE IRON COMPANY, whose products have added greatly to the reputation of the city, was incorporated in 1868, with a capital of \$75,000. This has since been increased to \$125,000. The factory plant is located on North Colony street, adjacent to the tracks of the New York, New Haven and Hartford Railroad, thus affording excellent facilities for receiving and shipping goods. The plant has several times been enlarged, and now ranks among the largest of the kind in the state. The concern gives employment to about one hundred and fifty hands. The goods made consist of cabinet hardware, including furniture casters, drawer pulls, drop handles, towel racks, shelf brackets, inkstands, etc. The celebrated "rapid cork-puller" and "rapid lemon-squeezer," which have become so popular, are also made. The company control the patents. In addition to the above, large quantities of brass and iron castings, finished and unfinished, and a number of specialties for plumbers' use are turned out. During the past four years the company have placed a number of patented specialties on the market, which have found a ready sale, and during the recent depression of business have been running full time. The present officers of the concern are : President, George W. Lyon ; secretary and treasurer, Eli I. Merriman ; superintendent, Charles L. Lyon.

THE MERIDEN MACHINE TOOL CO. was incorporated in 1889 with a capital of \$10,000, for the manufacture of "forming lathes" for turning ornamental shapes in steel, iron, brass, soft metals and wood. The factory is located on Britannia street, and the business has grown to about twelve times its original form. Improvements have been made on their lathes, and they have rapidly grown in favor both at home and abroad. About all the fancy plumbers' work, door-knobs, valves, etc., made in this country, are now made by these machines. As the field for these machines is constantly increasing, the company intend to devote all their attention toward their development, and continue to hold the position now held by them as the leading makers of forming lathes in this country. The popularity of these lathes has spread to Europe and other foreign countries, and numerous orders from abroad have been received. The concern has been able to run on full time and give employment to their full complement of help. The present officers are : H. Wales Lines, president ; Robert L. Peck, treasurer ; Walter L. Cheney, secretary.

THE MERIDEN BRONZE CO., one of Meriden's most thrifty concerns, was organized in 1882 as the Foster Hardware Company, succeeding the plant and business of S. H. Foster & Co. A year later a brass foundry was added to the plant and the manufacture of ornamental brass goods was begun, which soon became the principal product of the company. In 1884 the company was incorporated as The Meriden Bronze Company with a capital of \$65,000. The new organization at once took steps to increase the variety of their products, which had heretofore consisted chiefly

of ornamental gas fixtures, and to-day their catalogues contain a variety of artistic gas and electric fixtures, cabinets, tea and call-bells, onyx and gold tables, music-racks, easels, silk and linen shades, and last but not least, the celebrated Meriden piano, banquet, princess and table lamps, of which they are sole manufacturers. The company have an extended reputation, which has been built up in a short time from the merit of their goods. The plant, which is a large one, is located on Center street, and gives employment to about two hundred and fifty hands. The present officers are: President, Augustus H. Jones; secretary and treasurer, William E. Gard; superintendent, Daniel A. Logan.

EDWARD MILLER & CO. is another of Meriden's large and flourishing industries, giving employment to several hundred operatives of both sexes. The company was established in 1844, and incorporated in 1866 with a capital of \$500,000. The business, which was started in a comparatively small way, has assumed immense proportions, and to-day they have one of the largest plants in their line of manufacture in the country. The factory buildings are located on Center street, and cover a large area of space.

They are the patentees and manufacturers of the celebrated "Miller Lamp," the only perfect center draught lamp, said to be the latest and best. These are made in all styles and sizes. Among their principal products are piano lamps, library lamps, bronze lamps, decorated lamps, chandeliers, student lamps, bronze ornaments, fine sand castings, sheet and cast brass, kerosene oil burners, lanterns, brass kettles, machine oilers and tinnerns' hardware, all of which have an established reputation and a ready sale. The company have large and attractive stores in New York, Boston and Chicago. The officers of the concern are: Edward Miller, president; Edward Miller, Jr., secretary and treasurer; Benjamin C. Kennard, assistant treasurer.

THE CHARLES PARKER CO. is one of the oldest manufacturing concerns, which has grown up with the town and has added much toward making Meriden the thriving and progressive city that it is to-day. The company was incorporated with a capital of half a million dollars, and their factory plant, located on Elm street, is one of the largest in the city, and several hundred operatives are on their pay-roll. They are manufacturers of hardware, plated and britannia ware, lamps, etc., and the reputation of their products is world-wide. The "Parker" lamp, which forms one of their special features, is an established article in the trade and is in great demand from all quarters. In addition to the above, the company turn out large quantities of chandeliers, library, piano and parlor lamps, in every variety, coffee and spice mills, vises, blind hinges, cabinet locks, cabinet hardware and gimlet-pointed wood screws. These goods find a ready market all over the world. The company maintain a handsome office and salesroom at 95 Chambers street, New York. The present officers are: Charles Parker, president; Charles E. Parker, vice-president; William H. Lyon, secretary; Dexter W. Parker, treasurer.

THE PARKER CLOCK CO., an outgrowth of the Charles Parker Company, is a joint-stock organization, incorporated in July, 1893, with a capital of \$100,000, for the manufacture of clocks. The factory buildings are located on West Main street, and, although the firm organization is comparatively young, is fast taking its place among the leading concerns in the city. The firm produce a variety of styles of clocks, which find a ready market in the trade. The officers of the concern are: Theodore F. Breese, president and treasurer; William P. Zeigler, secretary.

PARKER BROTHERS, a contingent of the Charles Parker Company, are extensive manufacturers of breech-loading shot-guns, lithographic presses and machinery, for which they have attained a high standing among the trade. They maintain a large

factory plant on Cherry street, and give employment to a large number of skilled mechanics. The Parker gun is well known the world over by marksmen and sportsmen. They have the reputation of making the cleanest scores at all tournaments, and stand alone in the matter of perfect construction, beauty of finish, symmetrical lines and shooting qualities.

THE WILCOX SILVER PLATE COMPANY, manufacturers of the finest qualities of electro plate, have a commodious factory plant on Pratt street and are an old-established concern and are doing a large and profitable business. They are a joint stock corporation, having a capital of half a million dollars, and give employment to a large complement of hands. They have established a handsome showroom at No. 6 Maiden Lane, New York, from which sales are made to all parts of the globe. The present officers are: Aaron L. Collins, president; Samuel Dodd, secretary and treasurer; George E. Flint, assistant treasurer.

THE MERIDEN SILVER PLATE COMPANY was organized in 1870 with a capital of \$200,000, and has been one of the most prosperous concerns in the city. They are located on Colony street, corner Cross street, where they maintain a substantial plant and give employment to a large number of hands of both sexes. They manufacture the finest quality of quadruple-plated ware, and their goods are well established with the trade. They have salesrooms in New York and Chicago. The present officers are: Frank H. Cushing, secretary and treasurer, and William R. Mackay, superintendent and assistant treasurer.

MANNING, BOWMAN & CO. are manufacturers of granite iron and pearl agate-ware. The company was organized in 1864 with a capital of \$50,000, and by the steady growth of their business their factory buildings on Pratt street compare favorably with other large concerns in the city. Their chief products are the perfection granite iron and decorated pearl agate-ware, also electro-silver and nickel-plated ware, britannia and planished goods, and a complete line of chafing dishes, five o'clocks, coffee urns, baking dishes, etc. The firm have established a reputation for their goods second to no other concern, and their trade extends to all parts of the country. They have a showroom at 35 Warren street, New York, in which are displayed the latest designs of the art in their line, and probably but few business men are better known to the trade than Messrs. Manning and Bowman. The officers are E. B. Manning, president; Robert Bowman, secretary and treasurer.

M. B. SCHENCK & CO., manufacturers of casters, is an industry of no small moment to Meriden, as the concern has the reputation of making the best line and greatest variety of patent casters produced by any factory in the world. The firm is composed of Martin B. and William A. Schenck. Their shops are located on Center street and many hands are employed. The firm produce over two hundred and fifty kinds of casters, all of which are patented and owned by them and are the inventions of the senior member of the firm. The celebrated "Yale" and "Gem" casters, so favorably known, are among the special products of this concern. The "Gem" caster is very popular with the furniture trade, having steel ball-bearing rollers, which are capped over to protect them from dust, threads, etc. It is also very strong, and operates without strain or friction. The "Yale" is, perhaps, the best for all-around purposes. This is made in twelve sizes. It has double-floor rollers and double friction-wheels, and the largest size made is capable of carrying a car-load.

THE C. F. MONROE CO., whose industry has spread throughout the United States and Canada, was incorporated in 1892 with a capital of \$40,000. They maintain a large plant on Capital avenue, and give employment to a large force of artistic

workmen. Their products comprise innumerable beautiful fancy articles in glass and porcelain, unique in design and suitable for wedding and holiday gifts. In fancy articles of porcelain, or glass with gold or silver trimmings, this company leads the trade in this country. In design the company's products show marked originality and novelty, and their trade shows a marked increase each year, and their showroom is one of the chief attractions of the visitor to Meriden. The officers, to whom the successful management of the concern is largely due, are Charles F. Monroe, who acts as president and treasurer, and Edwin B. Everitt, secretary.

THE MERIDEN SADDLERY AND LEATHER CO., whose name indicates a line of manufacture somewhat foreign to those already mentioned, was incorporated in 1887 with a capital of \$50,000. The factory and salesroom are located on Pratt street, where every description of high and medium grade of harnesses, saddles, etc., can be found. This firm, like other Meriden concerns, cater to the field of trade as well as home consumption. Mr. P. E. Hull, who conducts the business, is a practical man and fully understands the wants of both jobber and consumer.

THE SILVER CITY PLATE CO. is one of the recent corporations of Meriden. It was organized in February, 1895, with a capital of \$5,000. They manufacture the finest kind of electro-plated ware. The factory is located on Veteran street. Their products are fast finding a place in the trade and a bright future is before them. The present officers are : Eugene H. Smith, president ; George A. Graham, secretary ; Sheldon B. Beach, treasurer.

THE MILLER BROTHERS CUTLERY COMPANY are among the old landmarks of Meriden, having been organized in 1870. They are capitalized at \$50,000. They have a large factory plant on Pratt street and employ a large force of help, including many skilled mechanics. Their principal product is patent pocket-cutlery and steel pens, and they are well-established with the trade all over the country. The goods turned out by this concern are first-class and meet with a ready sale. William F. Rockwell, the president and treasurer, is the leading light of the concern, and to his efforts are due its prosperity. C. L. Rockwell is the secretary.

THE MERIDEN CURTAIN FIXTURE COMPANY, organized in 1869, with a capital of \$40,000, is controlled and operated largely by the Parker Brothers. They have established a large plant on Broad street, where they manufacture shade cloths, shade rollers and shade fringes, and their products are in large demand. The officers of the corporation are : Charles Parker, president, and Dexter Parker, secretary and treasurer.

THE MERIDEN GRAVURE COMPANY, incorporated in 1888, with a capital of \$25,000, for the production of artotype work and photo-engraving, is one of Meriden's flourishing enterprises. This company holds the distinction of being the only concern, of its exclusive kind, practically in the state. The plant is located on Kensington avenue. Since its organization additions have been made from time to time, both to buildings and machinery, making it one possessed of all the modern conveniences and facilities for turning out large quantities of work. The company have the reputation of turning out the best of work in the artotype, half-tone, and relief process, and their patrons are scattered over the country in all directions. They are represented on the road by F. H. Schuyler, whose headquarters are in New York. The present officers of the company are: James F. Allen, president and treasurer; Orren W. Bassett, secretary; James A. Crosby, superintendent.

THE LYON & BILLARD COMPANY is one of the oldest mercantile concerns in the city, and, perhaps, one of the strongest in its line in the state. In 1847 George

W. Lyon and John D. Billard formed a copartnership for the purpose of conducting a general building business. In 1873 John L. Billard was admitted to the partnership, and the firm became Lyon, Billard & Company, and in 1878 a corporation was formed under the present title, with a capital of \$120,000, and William H. Lyon became a member. The business of the concern has been successful from the start. The firm, some years ago, added the coal and lumber branch to their business, which has grown to such proportions that it forms to-day the principal traffic of the company. Their plant is located on South Colony, corner Hanover street, and extends along the tracks of the New York, New Haven & Hartford Railroad some five hundred feet with about six hundred feet along Hanover street. They do a large wholesale and retail business in lumber, coal, lime, cement, doors, sashes, blinds, mouldings, nails and glass. The present officers of the company are: John D. Billard, president; John L. Billard, treasurer; William H. Lyon, secretary.

THE H. WALES LINES COMPANY was established in 1864, and incorporated in 1888, with a capital of \$35,000. The company are wholesale and retail dealers in masons' material and supplies of all kinds, and are also among the largest mason builders and contractors in the state. Their plant is located on State street. They have a railroad frontage of four hundred feet. The main storehouse is 150x40, and two stories high. In addition to their plant in Meriden, they have storage facilities in New Haven which they use as a distributing point. The reputation of this firm is widely established. It is interesting to note that a large proportion of the prominent buildings in Meriden, both residential, commercial and manufacturing, are their production. They have also been called upon, and have constructed large factories, school-houses and palatial residences throughout the state, also in New York, New Jersey and elsewhere. They are prepared to handle any kind of building contract with promptness and dispatch. The officers of the company are: H. Wales Lines, president and treasurer; Henry E. Fairchild, vice-president; Lewis A. Miller, secretary. Mr. Lines, the head of the firm, is also largely interested in numerous other financial and mercantile enterprises in Meriden.

THE BROWNE & DOWD MANUFACTURING COMPANY was incorporated in 1892 with a capital of \$5,000, and a factory-plant established at the corner of Center and Britannia streets. This firm produce two articles which have established them in the front rank in the trade, in the shape of the "Yankee Tack-puller," and the "Never-slip Can-opener," and these goods find a ready market in all parts of the globe. The company possess every facility in the way of modern machinery for turning out large quantities of goods. The above articles, which have found so much favor, are the invention of Mr. Browne. The present officers are: W. D. Palmer, president; William G. Browne, secretary and treasurer.

THE WILLIAM W. WHEELER CO., incorporated in 1891, with a capital of \$2,000, have established a plant on Hanover street where they are engaged in mechanical photographing, which they are carrying on successfully. This concern is one of the largest in the United States that do a business of making photographs of agents' samples. The concern, although young, is destined to reach large proportions. The present officers are: William W. Wheeler, president and treasurer; Horace W. Kingsley, secretary.

EDGAR J. DOOLITTLE conducts one of the largest paper-box manufactories in the state. He embarked in this industry in 1862, and his phenomenal success is justly deserved. His factory is located on Camp street, adjoining the railroad, and has a track frontage of about three hundred feet. Every description of paper-boxes is produced, from the cheap cartons for holding the roughest goods to the finest boxes

lined with silks, satins and plushes, used in the packing of the silver, bronze and artistic wares. In addition, store boxes, shelf boxes, confection, wedding-cake and fancy boxes are among the products. Large quantities of gold, silver, tinsel, glazed tinted, embossed, ivory and enamel papers are used, together with the cheaper grades. The factory is well equipped with all the latest machinery needed in a first-class shop, and the principal help employed are skilled mechanics. Mr. Doolittle has presided over the city as mayor, is prominent in Masonic circles, and is also a director in the Home National Bank, the Meriden Gas Light Company and the Meriden Hospital, a trustee in the Meriden Savings Bank, and interested in a great many of the local industries.

THE GRISWOLD, RICHMOND & GLOCK CO., organized in 1889, with a capital of \$50,000, are the largest dealers in the city in stoves, tinware and galvanized iron cornices, crockery, house-furnishings and bicycles. Their stores are located at 2 West Main and 2 and 4 Hanover streets. They are manufacturers, jobbers, tin-roofers and cornice-makers. The officers are: Nathan F. Griswold, president; John L. Richmond, secretary and treasurer; Charles C. Glock, superintendent.

THE JOHN F. BUTLER CO., incorporated in July, 1892, with a capital of \$10,000, conduct a large paint store at 51 Colony street, where a complete stock can be found. They also are engaged in painting and decorating. The officers are: John F. Butler, president; John Mather, vice-president; James T. Danaher, secretary; J. Mulhall, business manager.

THE E. N. POTTER CO., located at 30 West Main street, was incorporated in May, 1891, with a capital of \$5,000. The business of the concern is a general art and picture frame trade. The trade is well established and thrifty. The business is managed by Charles R. Potter.

THE CHAPMAN MANUFACTURING CO. is one of the busy concerns of Meriden. It was incorporated in March, 1882, with a capital of \$25,000, for the manufacture of saddlery, hardware, etc. Their factory is located on Britannia street, where they do a large business. Their products, which consist chiefly of saddlery, hardware, sleigh bells and plumes, tennis belts and bicycle bells, find a ready demand among the trade. They maintain an office in Boston with gratifying success. The officers are: George Rockwell, president; Selah A. Hull, secretary; William E. Pepper, treasurer.

FOSTER, MERRIMAN & CO., organized with a capital of \$80,000, are extensive manufacturers of casters, drop handles, furniture trimmings and cabinet hardware. Their factory is on Cross street. They give employment to a large force of hands, and their wares are quite popular with the trade. The officers are: President, John Sutliff; secretary and treasurer, George C. Merriman.

THE DOEBLER & LEONARD MANUFACTURING CO. carry on a large business in the manufacture of builders' hardware at their factory plant on Center street. Their goods are well known among the trade. The company was incorporated in 1895 with a capital of \$10,000. C. F. Doebler is the president, and E. F. Leonard is secretary and treasurer.

THE ELECTRIC LETTER BOX CO. is comparatively a young industry in Meriden. The organization was incorporated in August, 1893, with a capital of \$8,000. Their plant is located on Mechanic street, where they employ a force of skilled mechanics. They produce electric letter boxes and electric bells in large quantities, which find a ready market. Benjamin F. Barnes is the president and treasurer, and E. Tredennick, secretary.

The factory occupied by WILBUR B. HALL, on Parker avenue, for the manufacture of napkin rings and individual salts and peppers, has grown to be quite an

industry. He first started the industry in 1882, and by perseverance and the product of good wares was compelled to enlarge his plant, and consequently erected his present factory in 1885. The excellence of his goods is recognized among the trade, and the extreme low prices quoted by this concern make them ready sellers. The products of this firm are known in nearly every state in the Union.

THE LEWIS WOODWORKING Co., organized in March, 1896, with a capital of \$10,000, have established a large plant on State and Mill streets, where they do a large business in fancy wood turning, scroll sawing and all kinds of ornamental woodwork. The officers are: H. J. Lewis, president; Selah A. Hull, secretary and treasurer; S. C. Lewis, superintendent.

The works of PHILIP J. HANDEL add their mite to the business industry of Meriden. Among the goods produced at his factory are decorated glassware and china, lamps, globes, shades, jars, bonbons, salts and peppers, etc. The decorative work from this concern is of the highest order. Among the many desirable articles are goods of the Dresden style. The patrons of this firm are manufacturers, jobbers, importers and retailers, and the products of the factory find a ready market. In addition to the factory plant Mr. Handel has opened a salesroom at 32 Park Place, New York.

A. J. BECKLEY & Co., located on Colony street, are extensive manufacturers of perforated sheet metals of all kinds and for all uses, such as coal and ore separators, revolving screens, fire escapes, stair treads, all kinds of grain-cleaning machinery, mining and smelting works, stamp batteries, etc.

JACOB MUGLER, located on South Second street, carries on the manufacture of architectural and ornamental wrought-iron work in a great variety. Among the specialties are builders' iron work, fire escapes, crestings, railings, gas and electric light fixtures, lamps, tables, andirons, fire sets, fire fenders, five o'clock teas, signs and sign brackets in all kinds of leaf scroll and Venetian work, also heavy and light forgings in iron and steel.

The firm of JOHN S. LANE & SON is quite an important industry in Meriden, and many of the good roads in the city are built of the broken stone from their plant. The business was started in 1890, the proprietors being John S. and Arthur S. Lane. These gentlemen have been very successful in business and have extended their trade in all directions. Besides building roads in different cities, they have supplied broken stone for the New York, New Haven & Hartford Railroad Company, for ballasting their tracks on the New York and Shore Line divisions. The stone furnished by them is in great demand for this work owing to its superior quality. At their plant in this city as many as one hundred and seventy-five car loads of stone have been loaded and shipped in a day. They are fully equipped with all the modern machinery for road building, and their work in this line cannot be surpassed, as their testimonials from many cities and towns will testify. Their plant is equipped with all the labor-saving machinery for quarrying the stone, crushing, screening, etc.

WILLIAM A. KENDRICK (G. I. Mix & Co.), manufacturers of German silver spoons and light hardware, operate a large plant at Yalesville, between Meriden and Wallingford, and give employment to a large number of hands. The products of this concern are of excellent quality and well established in the trade. Mr. Kendrick is a practical manufacturer and is well known throughout the business world.

The firm of IVES, UPHAM & RAND, dry-goods dealers, 44 Colony street, is one of the oldest and largest in its line in the state. The business was founded by John Ives nearly half a century ago, the business having been continued since 1847, finally succeeding to the above firm in 1865. The firm carry an extensive stock of

dry goods, dress goods, cloaks, carpets, draperies, fancy goods, underwear, blankets, table damask, hosiery, etc., etc. In their dealings they have always held the confidence of their patrons. Hence their success.

THE MERIDEN PROVISION CO., organized in 1890 with a capital of \$100,000, are connected with the great Chicago house of Swift & Company. They have a large plant, extending from 101 to 109 South Colony street, and are extensive packers and wholesale dealers in all kinds of meats, etc. John W. Coe is the assistant treasurer and local manager; G. F. Swift, of Chicago, is the president; and E. C. Swift, of Boston, treasurer.

THE MERIDEN BREWING CO., which is one of the branches of the Connecticut Breweries Company, is a large concern located on South Colony street. The plant has a capacity of 100,000 barrels per year, and the present output is over one-half of its full capacity. The average number of brewings is about 300 per year. John A. Hurley is the manager, and his hustling qualities have made the Meriden plant a success.

THE MERIDEN BRITANNIA CO.* was organized under the joint-stock laws of the state of Connecticut, on the 16th day of December, 1852, with a capital stock of \$50,000, subscribed by the following gentlemen: I. C. Lewis, H. C. Wilcox, D. C. Wilcox, James A. Frary, Lemuel J. Curtis, W. W. Lyman, of Meriden, and John Munson, of Wallingford. The following officers were elected: I. C. Lewis, president, and H. C. Wilcox, secretary and treasurer. The manufacture of britannia ware was begun in Meriden, about the year 1808, by Ashabel Griswold; his factory was located in the north part of Meriden, and for a number of years he was engaged in the manufacture and sale of such articles as tea and coffee-pots, cups and spoons. He did a large business for those times, and his wares were carried to all sections of the country by peddlers, who penetrated even to remote parts of the South. Subsequently, others engaged in the business, and by 1850 there were several firms engaged in the manufacture of this ware in Meriden, the principal being James A. Frary & Co., I. C. Lewis & Co., and Curtis & Lyman. There had also been formed a partnership by two brothers, Messrs. H. C. and D. C. Wilcox, under the firm-name of H. C. Wilcox & Co., and most of the product of the different factories was marketed by this firm. In order to control competition, reduce expenses and bring the management of affairs under one head, the Meriden Britannia Company was formed. Into this union was also incorporated the business of Mr. John Munson, who was at this time manufacturing in Wallingford.

The business was now confined to the Frary shop in the north part of the town, the Lewis factory in the east, and the Munson factory in Wallingford, the offices being on Main street in Meriden, in the building now occupied by the Griswold, Richmond & Glock Co. At the formation of the company all articles were cast in moulds and electro-plating was not used, but in 1854 began the rolling of metals and the subsequent formation by spinning and stamping, and shortly after plating was adopted, and in 1856 a large plating factory was built on State street, the first of their large collection of shops in this vicinity. The output during these first years consisted of such articles as tea and coffee-pots, bitter tubes, candlesticks, cups, tea and tablespoons, dinner castors, fluid lamps, "spittoons," sewing birds, etc.; and, as their utility was duly appreciated by the public, as was shown by the rapidly increasing trade of the company, the number and variety of wares were constantly increased. By 1855 they had begun the output of German silver forks and spoons,

* By George M. Curtis.

heavily plated, and subsequently they secured the services of the famous Rogers brothers, under whose supervision these goods were produced. The honesty and skill of manufacture and beauty of design account for the rapid increase of this business, and to-day the reputation of their trade-mark ("1847 Rogers Bros.") on forks, spoons and knives, is world-wide, and goods bearing this stamp will invariably bring a higher price in the market than any other brand. The business of the company had grown so large by 1863 that the large factory on the west side of State street, over five hundred feet long, was erected (ground being broken on the day of the battle of Gettysburg), and the other factories in Meriden and Wallingford were abandoned. Their wares were now being sold all over the United States, and exported to many foreign countries, notably to South America, where a large and profitable trade was built up, so that a few years later it was necessary to send a representative to that continent to look after the various interests of the company, and which connection has been since maintained.

A New York depot or salesroom was established during the early years of the business in connection with another company, but in 1863 they established their own warerooms at 199 Broadway, and shortly after the secretary of the company, Mr. D. C. Wilcox, moved to New York to give the business his personal supervision. By 1866 they had also established an agency on the Pacific coast, under the care of Mr. W. P. Morgan, and a few years later a store was opened in Chicago, under the charge of Mr. A. L. Sercomb, and an agency was established in London. By this time their wares had materially changed in styles and quality. No britannia was now made, the base metal of all products being either what is called white metal or nickel-silver, which is as durable and susceptible of as high a finish as solid silver. Many articles were being produced of a highly ornamental nature, and artistic in design. In 1881 another large factory was built on the corner of Miller and State streets in Meriden, and the same year a branch factory was established in Hamilton, Ontario, which developed at once into a prosperous business. A few years later a new plating-shop was built in Meriden, to be used exclusively for plating forks, spoons and knives, and it is to-day the most complete and extensive plating factory in the country. During these years, and since, many additions and extensions to the factories have been built, about which no special mention has been made. Their wares to-day are sold in almost every country of the civilized world.

The number of different articles produced are bewildering in their variety; they comprise not only those for table use, but embrace a large number for toilet use as well. The fact that an article bears the trade-mark of the Meriden Britannia Co. is considered the country over as a guarantee of standard quality and honest manufacture. The company have lately gone extensively into the production of sterling silverware, and this department is rapidly increasing in importance. In 1876, the company made a brilliant display of their productions at the Centennial Exhibition in Philadelphia, and repeated it on a still more elaborate scale at the Columbian Fair of Chicago, in 1893. They exhibited at Paris in 1889, and have made displays at numerous minor exhibitions and fairs, and they have invariably been given the highest awards in recognition of their achievements. Their salesrooms in New York were removed from 199 to 550 Broadway, and subsequently to 46 East Fourteenth street, on Union Square, and two years ago were removed to 208 Fifth avenue, on Madison Square. The company has also acquired large interests in other manufacturing corporations. The capital stock of the Meriden Britannia Company, at its organization in 1852, was \$50,000. In 1854, was increased to \$60,000; in 1857, to \$100,000; in 1860, it was made \$200,000; in 1863, \$250,000; in 1866, \$550,000; and

in 1879 it was increased to \$1,100,000, where it has remained. As stated already, the officers elected at the organization were I. C. Lewis, president; and H. C. Wilcox, secretary and treasurer; but a few days later, Mr. Wilcox resigned the office of treasurer, and Mr. George M. Curtis, who had been the teller in the Meriden Bank, was elected treasurer in his place, and continued to hold the office until his death in 1893.

In 1865 Mr. H. C. Wilcox resigned the office of secretary, and Mr. D. C. Wilcox was elected in his place and continued in the office until his death in 1886. In 1866 Mr. Lewis resigned the office of president, and Mr. H. C. Wilcox was elected in his place and continued to hold the office until his death in 1890. He was a man of marvellous energy and perseverance, and devoted his life to the interests of the company. At his death Mr. I. C. Lewis was again elected president, and served in that capacity until his death in 1893, when the present president, Mr. George H. Wilcox, was elected. The present officers are: George H. Wilcox, president; F. P. Wilcox, vice-president; George M. Curtis, treasurer, and George Rockwell, secretary. The directors are: D. B. Hamilton, Waterbury; George H. Wilcox, George Rockwell, and George M. Curtis, of Meriden; F. P. Wilcox, New York city; C. Berry Peets, New Haven; J. M. Harmon, Meriden; Henry J. Lewis, Stratford, and Dr. G. P. Davis, Hartford.



CHAPTER LXXXVII.

MANUFACTURING INTERESTS OF WALLINGFORD.

BY LEVERETT M. HUBBARD.



THE town of Wallingford presents an interesting example of the growth and prosperity, largely due to the development of manufacturing industries, which have distinguished so many of our New England towns. The town was incorporated in 1670, eight years after the colony received its charter, and five years after the union of the Connecticut with the New Haven colony. Only fifteen towns in the state were settled earlier; and none of them by sturdier, more intelligent and religious people, than were the men who, numbering with their wives and children, scarcely a hundred, migrated to "the plantation on the playne," and laid the foundation of this goodly town.

Since it is the exclusive purpose of the present article to sketch the history of manufacturing in Wallingford, the period from its settlement until the beginning of the present century requires only brief notice; for in this period here, as in the colonies generally, was the era of the saw-mill, and the grist-mill, the diversification of manufactures not having made, as yet, a real beginning.

After erecting their houses, clearing away the forest to procure the land necessary for cultivation, and providing for a stated preaching of the gospel, one of the first acts of the settlers was to assemble in town meeting on the 30th day of January, 1673, and to take steps toward constructing a mill for grinding their corn. After prolonged and indecisive negotiations, a contract was at length made between the town and Lieut. Fowler, a miller from Milford, and a mill was located on Wharton's brook in the southeasterly part of the village, near the residence of the late Joseph Doolittle. Upon its completion, at a town meeting December 12, 1674, the inhabitants were ordered "to bring in their corn to the mill to be ground," Wednesday and Thursday of each week being set apart for that purpose. Owing to a difference with the miller and dissatisfaction with the location, Fowler was succeeded by one John Lothrop, and in May, 1678, the mill removed to the "First Falls" on the Quinipiac river, and eight years later, a short distance down the stream to the present site of the works of Charles Parker & Company. Lothrop remained the miller for a number of years, and upon his decease, his heirs in 1704 conveyed their interests in the property to one Tyler and one Stanley.

In 1707 the town made a contract with William Tyler, who had bought out Stanley, whereby from that time it surrendered all control over the mill and miller. The mill and privilege remained in the Tyler family nearly a hundred years, until about 1810, when it was purchased by the late Charles Yale, who made extensive

repairs and alterations, and changed the name of its locality from Tyler Mills to Yalesville. Under the conditions upon which this property had been enlarged by the sequestration of land by the town, a portion of this privilege was for many years operated as a grist-mill, though from this time forward it was principally devoted to other manufacturing uses, as will hereafter appear.

Several other flouring mills, with here and there a saw-mill, located mostly on Wharton's Brook or the Quinnipiac river, which bounded the village on its easterly and westerly sides respectively, represent the development of local manufactures until the beginning of the present century, so far as can be learned from written or oral tradition.

During the next fifty years numerous manufacturing industries of various kinds were undertaken. One of the earliest, as well as one of the most permanent and important industries, was the tanning of leather and the manufacture of harness and shoes by Zera Munson, which was begun soon after the century opened, and carried on by him and his eldest son, Hunn, until about 1816, when another son, the late Medad W., at sixteen years of age, became active in its management, and a little later succeeded to the ownership of the business. Young Medad soon established a reputation in the trade as one of the best of tanners, and Munson's calf-skins and patent leather soon came to be regarded as unsurpassed for quality and finish. In 1836 oak bark had become so scarce and expensive that, compelled to seek a cheaper market, he removed his tanning department to the adjoining town of Durham, where he continued until 1848, meanwhile finishing his leather in Wallingford. In that year he re-established his tannery in Wallingford and engaged in the manufacture of patent and enameled leather. He soon developed a large business and at length discontinued the branches previously operated, and occupied the entire capacity of the works. This industry was discontinued at the outbreak of the war in 1861, owing to the closing of the southern market to northern carriage-makers, who were the principal purchasers of Mr. Munson's products. Later he took up the manufacture of calf-skin, which he carried on until 1866, when, after an active career of a full half century, he succumbed to the infirmities of age and finally retired from business.

Another early industry of some importance was the manufacture of razor-strops, begun about 1820 by E. M. Pomeroy, James Carrington and Constance Kirtland in the shop on or near the present site of Hall Brothers' market on Center street, and afterwards carried on at the corner of Center and Fair streets, in the building since remodeled and known as the residence of Albert Hallenbeck. Mr. Pomeroy within a few years became sole proprietor. The strops were in large demand and were sold principally to peddlers who drove teams owned by Mr. Pomeroy himself. Razor-strops were also manufactured for about twenty-five years, from about 1840, by the late John P. Hall, in the shop a little south of his late residence on Main street. During a part of this period, Mr. Hall was the largest producer of this commodity in the country. His brothers, Elizur R. and P. W. Hall, succeeded to the business, which they prosecuted on a smaller scale for some ten years.

About 1826 James and M. M. Carrington built a factory on Wharton's Brook, where the works of Simpson, Hall, Miller & Company now stand, in which for four years they manufactured coffee-mills. For a number of years, beginning about 1835, William Ward carried on the manufacture of fur and woolen hats at the corner of Main and Ward streets, on the premises since known as the Peter Whittelsey place, while during the same period and until about 1850, his sons, Loudon, H. B. and Smith, manufactured pewter tea-pots a few rods further north on Main street.

In the early forties, E. M. Pomeroy, with his son, Lucien, and Lyman Humis-

ton, associated themselves in business. Humiston was part owner of the grist-mill, and the carding, fulling and cloth-dressing works on the Quinnipiac river, near the Wallace bridge, formerly operated by his father, and at this time, as for a number of years preceding, by himself and his brother Daniel. This property was leased to the new company, who occupied it for manufacturing various small wares, but, principally, paper buttons, until its sale in 1847 to Samuel Simpson, when they moved to a shop on Wharton's Brook, a little above the coffee-mill factory of the Carringtons, already referred to. Here they continued until about 1850, when Humiston withdrew, and the Pomeroy, associating with William Elton, Almer Hall and J. S. Mitchell, succeeded to the business, and organizing the Pomeroy Manufacturing Company, with a capital of \$10,000, continued it till 1866, when it was purchased by Simpson, Hall, Miller & Company, a corporation organized in that same year, and located on the site of its present immense plant on East Center street. This new company purchased at the same time the business of Almer I. Hall and Friend Miller, who, under the name of Hall & Miller, had for some years carried on the manufacture of buttons at this place. Simpson, Hall, Miller & Company continued the making of buttons and gun-wads for a few months, when, uniting with Lucien Pomeroy, they formed, in September, 1866, a new corporation under the old name of the Pomeroy Manufacturing Company, with a capital of \$15,000, with Lucien Pomeroy, president, and Andrew Andrews, secretary, and transferred to it this branch of their business. The new company located in the factory formerly occupied by Elihu Hall & Son, adjoining the Phinney Place on Center street, where it continued the business for four or five years, when, owing to the small demand for paper buttons, it was discontinued.

Another early enterprise was that of the manufacture of carriages, established about 1820, by Medad C. Munson, who first located on the south side of Center, east of Elm street. This was before wagon-making had become specialized, and the manufacture of individual parts formed distinct industries. All the work entering into the construction of a wagon, both in metal and wood, from the raw material to the finished product, was the business of the general carriage-maker. Mr. Munson began his career with the comprehensive knowledge thus required, having completed the full period of an apprenticeship with Mix & Bradley, large carriage-makers in New Haven. He soon developed quite a business, and, enlarged facilities becoming necessary, about 1835, built on the opposite side of the street, a little further east, the shops in which he continued his business until his death, in 1870. For many years he did a considerable business, supplying largely the local demand, and at the same time sending his product into the southern market and other sections of the country. His sons, Henry and William H., were, from their boyhood, associated with him, and at his decease carried forward the business under the name of Munson Bros., until the death of William, about 1880. Since that time it has been prosecuted by various parties for brief periods, until, in 1890, it was purchased by L. B. Scranton, who, bringing here his smaller business which he had carried on for a number of years before in the northerly part of the town, re-established on this old site a large and prosperous trade.

Not many years after Mr. Munson began business, when wagon-making had become subdivided into distinct branches for the manufacture of parts—wheels, bodies, etc.—Mr. Elihu Hall began the making of carriage-wheels, at length establishing a business which has, for many years, been an important local industry. He commenced this enterprise as early as 1835; three years later he engaged in the manufacture of wooden combs, to which he soon added the making of paper buttons

in the factory on Center street, already referred to. In 1845 he moved to the factory on Wharton's Brook, occupied later by the Pomeroy Company, but in a few years returned to the old place, carrying on a general turning business, and, after 1855, manufactured wheels by machinery in company with his son, John M., under the firm-name of Elihu Hall & Son. In March, 1864, Mr. Hall, with E. H. Ives and others, formed the corporation of Elihu Hall & Co., Elihu Hall president, and E. H. Ives secretary and treasurer, which succeeded to the business, continuing in the old quarters, until, in 1865, they purchased from Hall, Elton & Co. the eligible property near the railroad station, which they and their successors have ever since occupied. Under careful and successful management a large business was soon developed, and the "Warner wheel" (named for the patentee of an improvement owned and used by them) secured to this company large prestige and a high rank in the wheel and wagon trade throughout the country.

In 1873 the business was sold out to a new corporation, the Hall & Parmelee Wheel Company, organized in October of that year, with a capital of \$70,000, and composed of the principal stockholders in the old company, with the addition of E. S. Parmelee, B. A. Treat and W. S. Kelley, all of Naugatuck, principal owners of the Naugatuck Wheel Company located there, whose business was also at this time purchased by the new company and removed to Wallingford, where, in combination with the old business of Elihu Hall & Company, it was carried on until 1876. In the latter year the Hall & Parmelee Wheel Company sold out to the Naugatuck company, which removed the business to Naugatuck, and continued there until 1878, when the entire plant of the Naugatuck company was established in Wallingford. The legal location of the corporation was at the same time removed to Wallingford, and, in the next year, the corporate name was changed to the Wallingford Wheel Company. The general manufacture of wheels was carried on until 1888, when it was discontinued, under an agreement with the American Wheel Company of Chicago, and thereafter the production of materials—hubs, spokes and rims—formed the principal business of the concern, until in 1896 it was succeeded by the Wheel and Cycle Bar Company, which, at the same time, purchased the business of C. W. Robinson & Company, a partnership composed of C. W. Robinson, Charles Terrill and Charles C. Hill, who had carried on the manufacture of carriage wheels on the premises of the Wallingford Wheel Company since 1889. The Wheel and Cycle Bar Company was organized in October, 1896, with a capital of \$10,000, its stockholders being W. A. Wickware, R. S. Austin, E. A. Wood and Emma T. Linsley, for the purpose, as set forth in its articles, of buying and selling lumber, manufacturing wheels, hubs, spokes and cycle bars. This company is now in the active prosecution of its business with encouraging prospects for substantial growth and prosperity.

Certain other undertakings during the first half of the century should be briefly mentioned before reference is made to those which form a distinct class, and constitute the basis of the great britannia and silver industry. The development of these industries, which have so largely contributed to the prosperity and growth of the town, have, with a view to continuity in narration, been reserved for separate description. Among these undertakings was the manufacture of gimlets and auger bits, in the early forties, by J. B. Pomeroy and John P. Hall as copartners, under the firm-name of Pomeroy & Hall, which was carried on at the old works of Charles and Hiram Yale, in Yalesville.

About the year 1840 Mr. Hall withdrew, and Mr. Pomeroy removed the business to a hamlet in the southwesterly part of the town, named Quinnipiac, occupying the factory erected about 1833, and used by Almer Hall, Wooster Martin and

others for the manufacture of wood screws, an undertaking which proved unprofitable and was soon abandoned. Mr. Pomeroy remained there until 1850, when, after carrying on for a brief period the business of manufacturing razor-strops in the building on Main street, near the present site of the residence of H. L. Judd, he removed to the old Pomeroy factory on Wharton's Brook, in the easterly part of the town, and here resumed the manufacture of gimlets and auger-bits, which he continued for some fifteen years, when he was succeeded by Ransom, Sylvester and Charles H. Gaylord, who, under the firm-name of Gaylord Brothers, carried it along for several years until the factory was burned and it disappeared from the list of local industries.

Another enterprise of the period was that of Eldredge Morse, who, in the early forties, built a factory near the railroad station, since best known as the works of Elihu Hall & Company, and The Wallingford Wheel Company, in which he carried on for a few years the manufacture of various small articles, and, to some extent, britannia and German silver spoons, employing, during certain periods, some forty to fifty persons. This factory was, in 1848, sold to Hall, Elton & Company, and, later, by them to Elihu Hall & Company.

From about 1810 until some time in the thirties, near the present location of the business established by his son, G. I. Mix, in Yalesville, John Mix carried on the manufacture of bayonets for Eli Whitney, the inventor of the cotton gin, who had large contracts for supplying the Federal government with small arms.

Another pioneer enterprise was the manufacture of japanned and tin ware, mostly housekeeping utensils, carried on during about forty years by Lyman Cannon from about 1815, and thereafter by his son Burdett until his death in 1868. The business during this combined period was located where the residence of O. H. D. Fowler now stands on Center street. It grew to considerable proportions, giving employment to many persons. Its product was largely sold by peddlers, several of whom were constantly traversing the various sections of the state with their wagons. The same line of business was also conducted on quite a large scale by Charles Yale for a few years prior to 1810, and for some years thereafter, in a factory situated where the residence of Lyman Munroe now stands, on South Main street. His goods were largely sold to the southern trade through his store in Richmond, Va., where he is said to have done for some years a very successful business.

During the same period, with his brother Hiram, he was engaged in the manufacture of pewter and britannia ware (principally pewter tea-pots), on the south-east corner of Main and Center streets. This enterprise deserves special notice, as it was the first of its kind to be established in the town, and marked the beginning of an industry whose development in various forms has reached very large proportions, and which has greatly contributed to the wealth and growth of the town. The Yales were ambitious and enterprising, and they soon increased their business to such an extent that the primitive method of procuring power for their work was entirely inadequate. Their search for a suitable water-power resulted, as heretofore stated, in the purchase, about 1810, of the old grist-mill at Tyler's Falls, thenceforth known as Yalesville. The old buildings were enlarged, new ones added, and new machinery procured; so that these mills, taken together, constituted, we believe, the largest plant used at that time for any business of the kind in the country. To this factory the business in the village was removed, and active operations soon began. At first the metal used was pewter, composed of about four parts lead to one of English tin known as block tin; and the principal wares produced were plates, platters, basins, spoons, mugs, tea-pots etc. The business steadily increased from the start, and the Yales soon held a leading place in this branch of manufacture. They imported

several skilled workmen from establishments in England where similar utensils were made of a compound known as britannia metal, from which lead was entirely excluded and metals of a harder and finer texture used. This composite metal was susceptible of a brighter and more durable polish than lead. The Yales began at once to use it on a large scale, and adding the making of hollow-ware—such as tea-sets, communion-services, etc.—soon became recognized as among the largest manufacturers of britannia goods in this country. Learning also from these English artisans of the apprentice system already prevalent in England, the Yales were among the first American manufacturers to adopt it, and taught their trade to numbers who afterwards became conspicuously successful and widely known in this industry. Among these was Samuel Simpson, who, in April, 1829, at fifteen years of age, came to them as an apprentice, serving the full period of five years, and afterwards remained as journeyman and foreman until January, 1835. Hiram Yale had died some years before, and Charles, on account of declining health and various other discouragements, desired to discontinue the business. He accordingly proposed that young Simpson and Mr. Williams, his former foreman, should assume control; and they did so. Charles Yale died the same year.

Williams soon removed to Philadelphia, and Mr. Simpson, as sole successor, continued the manufacture of the same and of other lines of goods. About 1839 he purchased the Mix property, a few hundred rods below on the turnpike, removing his business to the shop on these premises in which for some years Frank Gale, of Meriden, had formerly manufactured tin-ware, and here carried it on until 1847, when he sold out to John Munson, who had been his fellow-apprentice, and afterwards in his employ. Mr. Simpson then purchased the old Humiston mill property on the westerly outskirt of the village, as already mentioned, and there resumed business on a much enlarged scale. About this time experiments in plating metal by electricity had proved successful, and Mr. Simpson, with characteristic sagacity, at once adopted this process, thus earning the distinction of being the first manufacturer in this country to apply the electro-plating process to hollow-ware. Needing more space than his newly-acquired factory afforded, he located a department for burnishing in the old hotel property, corner Main and Center streets, and another for plating in the building on Center street, now owned by C. N. Jones. He maintained both of these, together with the business of his main factory, until 1854, when he sold out to the Meriden Britannia Company. This concern had been organized in Meriden the year before by Horace and Dennis Wilcox, John Munson, Mr. Simpson's successor at Yalesville (who had meanwhile moved his business to what is known as Pattee's mill, on the easterly outskirt of Wallingford), Isaac C. Lewis, and some other smaller manufacturers of pewter and britannia wares. Mr. Simpson became a director and one of the largest stockholders in this company, and exercised a leading influence in its management until he disposed of his interest some six years later. In the next year (1855) Mr. Simpson, whose sagacious mind grasped the future of this industry, and saw in its assured development large opportunities for success, entered into a partnership with Robert Wallace, founder of the large and still-increasing business with which his name will remain inseparably connected.

It is in order here briefly to sketch the career of Mr. Wallace, to whom belongs the distinction of making the first German or nickel silver spoons produced in the country. He was born in Prospect, Conn., in 1815. At eighteen years of age he leased an old grist-mill in the adjoining town of Cheshire, and began the manufacture of spoons. About a year later he met a New Haven patron who showed him a spoon made from a metal which was new to both of them, and was called "German

silver." A little later young Wallace learned that a certain chemist had a small bar of the same metal, which he had brought from Germany. Wallace purchased it, carried it to a mill in Waterbury, had it rolled, and from the sheets made four dozen spoons. Shortly afterwards he met a gentleman in Waterbury, who had lately come from England, who had the recipe for making German silver. Mr. Wallace purchased it for \$25, and moving his machinery from his Cheshire mill to a shop in Quinnipiac, prepared to manufacture spoons and flat ware on a larger scale. He procured the nickel and other necessary ingredients, and here, in 1834, under the supervision of Robert Wallace, was compounded the first German silver ever made in America. Mr. Wallace, however, did little, if any, manufacturing in German silver for the market, and before long entered the employ of Hall, Elton & Company, a partnership then recently formed for manufacturing britannia spoons, and located where the works of Simpson, Hall, Miller & Company now stand. They had been convinced of the utility of this new method, and securing the services of Mr. Wallace, and other practical men, began the manufacture of German silver tea and tablespoons, and thus became the pioneers in that branch of manufacture. Mr. Wallace remained with Hall, Elton & Company until 1855, when he formed a copartnership for ten years with Samuel Simpson, under the firm-name and style of R. Wallace & Company. A little later other interested persons from the Meriden Britannia Company became members of the firm. Mr. Simpson had, as already stated, stocked his business with the Meriden Britannia Company the previous year, and the Humiston factory, which he had occupied, was, therefore, available for use. In this place, where the manufacture of electro-plating hollow-ware was first prosecuted on a large scale, was now laid the foundation for the largest spoon and general flat-ware manufacturing business in the world.

At the expiration of this partnership in 1865, the business was merged into a joint-stock corporation under the name of Wallace, Simpson & Company, with a capital of one hundred thousand dollars. The real ownership of the business was practically unchanged, the members of the old firm comprising largely the stockholders in the new corporation. The business had so far increased that larger factories and further equipment were demanded, and soon the water-power was improved and new factories erected a little further down the stream, on the present site of the industry. Mr. Simpson sold out his interest in 1871. In that year the corporate name was changed to the R. Wallace & Sons Manufacturing Company, its present title, and since then the controlling interest has been owned by members of the Wallace family. Various branches have from time to time been added, such as tinned spoons, silver-plated steel tableware, table cutlery, and solid silver flat-ware. In 1877, the sons of Robert Wallace formed a corporation, with a capital of fifty thousand dollars, under the name of Wallace Brothers, for the manufacture of sterling silver hollow-ware and novelties. This company was absorbed by the R. Wallace & Sons Manufacturing Company in 1879. Since then the latter has carried on a rapidly-increasing business in these lines, until now it constitutes by far the largest branch of its business, while its manufactures in flat-ware are more extensive than those of any other manufacturing establishment in the country, or even in the world. In the last twenty-five years its plant has increased six-fold. It has a capital now of three hundred thousand dollars, with a large surplus. Mr. Robert Wallace died in 1892. Since then his son, F. A. Wallace, has been the president, and his son-in-law, W. J. Leavenworth, has remained in the position he had previously held for several years, as treasurer and financial manager. The company has for many years maintained distributing houses in New York, Chicago and San Francisco.

About 1830, Deacon Almer Hall began making block-tin spoons in the shop on Main street near the present site of Simpson's Block. He employed at first only a few hands, but increased the number to twenty-five. He removed at length to Quinnipiac and continued there, adding the making of wood-screws. During the same period Jacob Hall was manufacturing spoons, on a small scale, in the same factory at Quinnipiac. In 1837, Almer Hall associated with him William Elton, and, the next year, Joel Hall, who was then, and had been for a number of years, manufacturing britannia spoons on the site of the present Simpson, Hall, Miller & Company works, forming the copartnership of Hall, Elton & Company. They soon procured the services of Robert Wallace and began the manufacture of German silver spoons, as already stated. Their business grew from the start, and, in 1848, they purchased and occupied the factory near the railroad station, later sold to Elihu Hall & Co., and in the same year erected the spacious office-building which stands a little further south on the same premises. In 1850, they united with Scoville Brothers, manufacturers of similar goods in Waterbury, and formed the corporation of Hall, Elton & Company (probably the first joint-stock corporation to organize in this town under the statute laws of the state), with a capital stock of \$75,000, Almer Hall, president and treasurer, and Edgar Atwater, secretary. Mr. Atwater died in 1850, and was succeeded by E. A. Mitchell, of New Haven. A year later they built the factory at the foot of what is now Silk street, on the east bank of the river, now Community Lake, and occupied both factories until 1865, when they sold the one near the railroad to Elihu Hall & Co. Robert H. Cowles, who had been elected secretary in 1857, now became treasurer, which office, together with that of general manager, he has ever since held.

In April, 1866, a number of gentlemen, mostly stockholders in Hall, Elton & Company, organized the Albata Plate Company with a capital of \$50,000, to manufacture German-silver flat ware, and purchased the factory, known as the cutlery works, at the railroad crossing, south of the station. They leased their business the same year to Hall, Elton & Company, who, three years later, absorbed it, and at the same time increased its capital stock to \$125,000. The cutlery works were at once doubled in size, and the factory on Silk street sold to the Wallingford Community, who removed it to its present site below the dam, where it has since been occupied for manufacturing purposes, and, with its late additions, now constitutes the plant of the Watrous Manufacturing Company. In 1882, the business of Hall, Elton & Co., which had been largely owned and controlled for many years by Waterbury parties, was leased for a term of years to the Meriden Britannia Company, which almost immediately sublet the factory for five years to the Maltby, Stevens & Curtiss Company, under a contract whereby the Meriden Company were to take so much of the product as they should desire. At the end of that period the property was again sublet for the same period to George M. Hallenbeck, who still occupies it, and is conducting a large and prosperous business along the same general lines on which the old house of Hall, Elton & Company gained so high a reputation both for honorable dealing and for the excellence of their products.

Before passing from the period in which the enterprises already enumerated had their beginning, it remains to notice a few others, relatively unimportant and temporary, which had their location in the factory of the Yales at Yalesville. Among these were the following: In the thirties, the firm of Yale & Henshaw, of Meriden, spoon-makers; in the forties, Bennett Jeralds, who for three years manufactured britannia spoons for Russell Holt, of Meriden; Eli Ives, of Meriden, who purchased the Yale factory in 1843, and at first alone, then for a year with Bennett Jeralds as co-

partner, carried on the same line of business; and John D. Johnson, of Middletown, who manufactured pins from 1845 to 1847. In the latter year this property was purchased from the heirs of Charles Yale by Charles Parker, of Meriden, who renewed and enlarged the buildings, and in copartnership with Garry I. Mix, under the firm-name of Charles Parker & Co., began in 1848, on a considerable scale, the manufacture of britannia and German silver spoons. When the term of the copartnership expired in 1854, Mr. Mix retired to establish an independent business. Mr. Parker carried on the business until 1876, when he discontinued the manufacture of German silver ware, and Mr. Bennett Jeralds, one of the pioneer spoon-makers of the country, who had been general foreman in this branch of Mr. Parker's business from its beginning, took up on his own account this industry, and carried it forward on a limited scale until a few years ago, when, on account of advancing age, he retired from business. Mr. Parker has added other lines of manufacture from time to time, including wood-work for coffee and spice-mills, piano stools and packing cases, using about two million feet of lumber annually. These branches are still continued on a considerable scale.

G. I. Mix, upon withdrawing, as already mentioned, located on the adjacent property, formerly owned by his father, almost on the very site where, as heretofore stated, his father had made bayonets during a long period of years, and soon laid the foundation of the large and honorable success which in due time he achieved. He associated with him, as partners, Elijah Rice, of Yalesville, and Franklin Johnson, of Wallingford, and under the name of G. I. Mix & Co. began the manufacture of britannia spoons. A little later were added house-furnishing goods, tin, iron and German silver spoons, and later still britannia and tin tea and coffee pots, and about 1887, carpenters' tools. Messrs. Rice and Johnson withdrew in 1869, when Mr. Mix formed a new partnership, taking in as a partner his son-in-law, William A. Kendrick, who, upon the decease of Mr. Mix in 1892, succeeded to the ownership of the business, which, under the old name of G. I. Mix & Co., he is now conducting with marked success.

Some years prior to 1850 the valuable power on the Quinnipiac river near the Yalesville railroad station, had been improved by N. C. Sanford and others, and utilized by them in the manufacture of augers. Later the firm of Clark, Nelson & Co., with E. H. Tracy, carried on here the manufacture of ship augers, and during the war did a large business. In 1881 Mr. Tracy, with C. E. Jennings and F. B. Griffin, of New York city, organized the L. Hommedieu Hardware Company, E. H. Tracy, president, with a capital of \$35,000, purchased this plant, and locating here, continued the manufacture of augers, and, in addition, various sorts of hardware, carpenter tools, edge tools, table cutlery, etc. Mr. Tracy died soon after, and in 1884 the name of the corporation was changed to the Jennings & Griffin Manufacturing Company. More than a hundred hands are employed in ordinary times. That the business has had a solid and steady growth is evidenced by the increase of the capital stock in 1882 to \$50,000; in 1883, to \$65,000; in 1886, to \$100,000. Since the death of Mr. Tracy, C. E. Jennings has been president and R. Aldrich superintendent.

With possible unimportant exceptions, mention has now been made of all local enterprises which began before the opening of the present half century. In 1850 the population of Wallingford was twenty-five hundred and ninety-five. The Hartford and New Haven railroad had recently been built, and was now in operation. It ran for eight miles within the borders of the town, through a stretch of territory naturally eligible for manufacturing purposes, and gave a prodigious impetus to existing busi-

ness by the facilities for transportation which it afforded. The more recent years have abundantly justified the hopes then cherished for the substantial development of manufacturing industries in the town, which have contributed so largely to the welfare and prosperity of the community. During the half century from 1850, however, many enterprises were projected which, for one reason or another, met with failure or with but meagre success, and were, sooner or later, abandoned or absorbed. Of these a brief notice will suffice.

In February, 1854, E. A. Mitchell, Almer Hall and Degross Fowler united to form the Fowler Manufacturing Company, with a capital of twenty-five thousand dollars to manufacture power-presses, frying-pans, etc., by means of special machinery invented by Mr. Fowler. They erected on the west side of the railroad, a short distance below the station, the spacious brick factory now occupied by the Simpson Nickel-Silver Company. Here they carried on their business until about 1860. During the next few years the building was vacant until 1863 when it was used, for a short time, for quartering parts of the Fifth, Eighth and Twelfth Connecticut regiments, as was also the Cutlery Company's factory on the adjoining premises.

In July, 1852, The New England Cutlery Company of New Haven moved its business to Wallingford, and built the factory near the railroad-crossing, south of the station, since occupied by Hall, Elton & Co. In the following January its capital was increased from twenty-five to fifty thousand dollars. The principal owners of this business had been from the beginning Wallingford men, including E. H. Ives, Henry Martin, S. B. Parmelee, Almer Hall, William Elton and others. After moving to Wallingford, E. H. Ives became president and Henry Martin secretary. The venture proved unprofitable, and the company went into liquidation in December, 1854.

In July, 1864, John Munson, T. C. Banks, Dr. N. Banks, P. J. Talcott, and others organized the Marine Signal Company, with a paid-up capital of two hundred thousand dollars, for the manufacture of lake and fog signals. They occupied the building vacated by the Fowler Manufacturing Company, and continued in business for about three years, when they removed to New Haven. The factory property a little later was purchased by Samuel Simpson. In November, 1867, T. C. Banks, John Munson, and others formed the Universal Gauge Company, with a capital of one hundred thousand dollars, for the manufacture of alarm gauges. This business proved unsuccessful and was of short duration. In January, 1872, J. N. Pierpont, Augustus Rich, and J. A. Johntry formed the Novelty Manufacturing Company, with a capital of fifteen thousand dollars, for the manufacture of metallic table-ware. This venture proved unsuccessful, and was soon discontinued.

In October, 1883, the Sweetland Manufacturing Company, with a capital of forty thousand dollars, was formed, and began the manufacture of chucks, succeeding to the business of Sweetland & Company, which had for several years previous been carried on in New Haven. It erected new buildings, a little northeast from the railroad station, which very soon after the business had been fairly started were destroyed by fire in May, 1884. The company did not rebuild, and the business was not resumed. In May, 1884, the Sackett Manufacturing Company was organized, with a capital of fifty thousand dollars, of which more than thirty-two thousand was paid in, to manufacture sewing-machine attachments and light hardware. The manager was Joseph L. Sackett. Among the local stockholders were Samuel Simpson, A. D. Judd, and others. The business was located in the shops of the Wallingford Community, and after two or three years of indifferent success, removed to New Haven. In 1882 F. H. Morse and T. W. Brooks entered into a copartnership to carry on the glass-cutting business, which was located in the rear of the old Pomeroy button fac-

tory, on Center street. A year later Mr. Brooks sold out his interest to C. A. Gerdenier, who, with Mr. Morse, carried on the business for about two years, when their factories were swept away by fire, and the business was discontinued. In December, 1887, the Art Printing Company was formed, to deal in fancy cards, novelties, and jewelry. This enterprise was also of short duration.

By far the most disastrous failure in any manufacturing enterprise or other local investment that has occurred in the history of the town, was that of the Wilson Sewing Machine Company, which was organized in September, 1882, with a capital of three hundred thousand dollars, for the manufacture of sewing machines. W. G. Wilson, of Chicago, had made a large fortune in the manufacture of sewing machines, in Cleveland, Ohio, and in Chicago. Wishing to retire from business, he had made a strong effort in various towns in the East to dispose of it. It was represented to be a thrifty business, and the particular machine he was then making, known as the "Wilson" machine, had a wide reputation in the West for its excellence. The knowledge of his desire to sell came to the attention of the business men of Wallingford, a number of whom interested themselves in the idea of securing for the town this large enterprise. A committee of leading citizens was sent to examine Mr. Wilson's plant at Grand Crossing, near Chicago, and to investigate the business generally. Mr. Wilson proposed to sell his machinery and factory furnishings, including patents, and the goodwill of the business, to the new company for one hundred thousand dollars, the capital stock of which should be three hundred thousand dollars. He was to receive payment in capital stock. The people of Wallingford were to subscribe one hundred thousand dollars, and the remaining one hundred thousand was to be sold by himself or his agents to such persons as he could induce to buy it. The committee made a favorable report, and a large public meeting was held in Wallingford, at which subscriptions to the extent of seventy-five thousand dollars were made within two hours, and the remainder of the one hundred thousand—the part to be taken by local investors—was subscribed for within a few days. The whole movement, so far as the people of Wallingford were concerned, originated from motives of public interest. While there were large subscriptions made to the enterprise—Mr. Samuel Simpson subscribing twenty-five thousand, Robert Wallace ten thousand, E. H. Ives ten thousand, and some others very considerable sums, the stock was mostly taken by persons in moderate circumstances, whose zeal for the interests of the town led them to venture—often quite beyond their means—into this enterprise. The total number of local subscribers was one hundred and sixteen. Incidentally, we may remark upon the extraordinary mortality among those who were interested, in a larger or smaller way, in this project.

Of the one hundred and sixteen subscribers thirty-five are now dead, and a large number of those who were principally instrumental in securing this enterprise for the town, and active in the management of its affairs, including Mr. Wilson, the first president of the company; Logan H. Roots, of Little Rock, Ark., his successor; and Messrs. Samuel Simpson, Robert Wallace, E. H. Ives, and G. W. Hull, the largest local subscribers. Immediately after its organization the company made preparations to erect a large plant on the New Haven and Hartford Railroad, about a quarter of a mile northerly from the station; plans and specifications were procured, contracts made, and the work of building begun. Meanwhile, the great mistake was made of determining to conduct the business of manufacturing machines at Wilson's factory, at Grand Crossing, until the new factory should be ready for occupancy. Differences soon arose between the local stockholders and the president, growing out of his failure to dispose of the \$100,000 of stock, as he had agreed to do, and the consequent inability

of the company to provide sufficient funds for the running expenses of the business in Chicago, and the discharge of its maturing obligations under its building contracts. The business continued with ever-increasing complications until, in November, 1884, upon application to the courts, a receiver was appointed, and it was wound up. A very small dividend was realized by the creditors, and none at all by the stockholders, many of whom were quite seriously crippled by their loss. In February, 1886, the factory was sold to the R. L. Spencer Company, whose legal location was in Essex, in this state, but which had, for some time previous, been carrying on in Hartford, a large business in card-printing, general publishing, and the sale of fancy goods and novelties. Their business was barely established in this factory before it, in turn, went into the hands of a receiver and was terminated. The factory and plant soon passed into the hands of Logan H. Roots, under the foreclosure of a mortgage held by him as security for bonds of the Wilson Sewing Machine Company. In the same month, November, 1887, Mr. Roots sold the property to G. W. Hull, who, in January, 1889, leased, and in May, 1890, sold it to The Metropolitan Rubber Company.

This corporation was located in Massachusetts where it was carrying on the manufacture of rubber clothing. None of its stockholders were residents of Wallingford. Most of them were young men who were identified with various other manufacturing industries in Massachusetts and New York. They re-organized the business under Connecticut law, in April, 1890, by forming a corporation with a capital of two hundred and fifty thousand dollars, for the manufacture of rubber and waterproof goods, especially clothing. The stockholders were Charles A. Place, R. E. Gallaher, C. H. Wilcox, of New York city, A. J. Tower and W. B. Dowse, of Boston. Mr. Place was elected president, Mr. Tower treasurer, and Mr. Dowse general superintendent. They have developed a substantial business and have a good prospect of large prosperity. Their product is sold through their New York store. The company also carries on manufacturing in New York city. The gentlemen comprising this company are also principal owners in the New York Insulated Wire Company, which occupies a portion of the Wallingford factories and employs not less than one hundred and fifty hands.

Soon after the failure of the R. L. Spencer Company a number of the parties principally interested in its business organized in June, 1886, the Domestic Manufacturing Company, for the carrying on of the same general business, and erected a factory now occupied by the Housatonic Company on Cherry street. This business was continued for about two years, and in December, 1888, the factory was leased to R. H. Macy & Co., of New York, for one year from the following January. The factory was used by Macy & Co. during this year for the manufacture of shirts. In September, 1890, it was sold to G. W. Hull, who, in November, 1890, sold it to the Housatonic Brass Corporation, of Derby, manufacturers of upholsterers' hardware. This company, J. B. Underwood, president, and E. A. Russell secretary, removed its business to Wallingford and occupied its newly acquired factory in April, 1891. The name of the corporation was at this time changed to the Housatonic Manufacturing Company. It subsequently added general brass hardware and metal trimmings for glass table ware, and nickel silver-plated ware. Early in 1896 its buildings were burned and the business for a time discontinued, but it was re-organized in the following July under the name of the Housatonic Company with a capital of twenty-five thousand dollars. C. A. Hamilton, of Waterbury, is president, and E. A. Russell treasurer and general manager. It employs about seventy-five hands and has a bright outlook.

In February, 1870, the Miller Brothers Cutlery Company was organized with

thirty thousand dollars capital, and carried on the manufacture of pocket cutlery for about three years, when it removed to Meriden.

In 1868 the Wallingford Community, a branch of the Oneida Community, established a silk industry in Wallingford, and operated it in connection with its silk mills at Oneida, N. Y. . They also developed a printing and publishing business, and in September, 1871, organized the Wallingford Printing Company, with a capital of one hundred thousand dollars, to continue that business, together with book-binding, electrotyping, paper-making, etc. They attained in this, as in other lines, a wide reputation for the thoroughness and excellence of their work. Their factories were situated on the Quinnipiac river at the privilege purchased by them from Hall, Elton & Co. They improved the water-power by building a larger dam, which is now known as Community Lake. Their business continued until the removal of the community from Wallingford, about 1880. The plant lay idle until 1884, when it was occupied under a lease by the Maltby, Stevens & Curtiss Company. This company had removed from Huntington, Conn., in 1882, and had been occupying the works of Hall, Elton & Company, under a lease for five years, as already stated in another connection. Upon leasing the Community factory in 1884 they fitted it up for an enlarged business in hollow-ware and began at once this industry on an increased scale, still carrying along a part of their business in the Hall, Elton & Company factory until the expiration of their lease. In 1887 their capital was increased from forty to eighty thousand dollars, and again in 1891 to one hundred and twenty-five thousand dollars. In August, 1890, they purchased the Community property and continued to do a large business in their various lines until May, 1896, when their business was reorganized, the principal members, with the addition of W. H. Watrous, president and large owner in the Rogers Manufacturing Company, of Hartford, Conn., uniting to form the Watrous Manufacturing Company with a capital of one hundred and twenty-five thousand dollars. Mr. W. H. Watrous is the president and George D. Munson, treasurer and manager.

In July, 1866, Samuel Simpson united with a number of young men—his son-in-law, G. W. Hull, A. I. Hall, Friend Miller and others—to form a corporation for the manufacture of plated hollow tableware. Mr. Simpson had led a very busy life in the conduct of the various enterprises with which he had been identified, and did not contemplate any active participation in the affairs of this concern. The company was organized under the name of Simpson, Hall, Miller & Company, with a capital of fifty thousand dollars. Mr. Simpson was its president and largest stockholder. From the beginning the business rapidly increased, and its demands gradually involved Mr. Simpson in constant attention to the affairs of the company. The capital was increased at frequent intervals, until it is now three hundred and two thousand dollars. The business now employs about three hundred and fifty hands, and the buildings have been increased six-fold. Mr. Simpson remained the controlling spirit in the business, and devoted to it his shrewd judgment and great executive ability. In 1870 Charles D. Yale, son of Charles Yale, one of the pioneers in local manufacturing, as we have seen, had recently retired from business in Richmond, Va., where he had led a long business career and amassed a fortune, and returned to his native town. At this time he invested largely in the stock of this company, and became its treasurer, serving in that capacity for many years, and, for about the same period, his sons, C. B. and G. S., were in charge of the New York store of the company. Mr. Simpson was also ably seconded for many years by his son-in-law, Gurdon W. Hull. In July, 1895, the making of sterling silver hollow-ware and novelties was added.

In January, 1871, Mr. Simpson and other members of this company united to form the Simpson Silver Nickel Company, with a capital of \$50,000, for the manufacture of German silver and silver-plated flat ware. This company purchased from Mr. Simpson the brick factory built by the Fowler Manufacturing Company, near the railroad station, and were soon doing a prosperous business. Mr. Simpson was president of this company until his death, in April, 1894. Thereupon, his son-in-law, Mr. Hull, was elected president of the Simpson, Hall, Miller & Company, but he died suddenly about a month later. Andrew Andrews, who had long been the secretary and superintendent of the concern, was now elected president of both the Simpson, Hall, Miller & Company and the Simpson Silver Nickel Company. Mr. C. H. Brown, for many years treasurer of the former company, still occupies that position. Mr. C. H. Tibbits, the son-in-law of Mr. Hull, was elected treasurer of the Simpson Silver Nickel Company, and is actively concerned in the management of both companies.

Mr. Samuel Simpson was as generous as he was successful. No citizen of Wallingford ever showed more public spirit or took a more active interest in the affairs of the town and in every good cause. He was prominently identified with the Episcopal church, and was for many years its senior warden. He contributed \$25,000 toward the erection of its edifice, and was always liberal in the support of all its interests. Besides other public bequests, he left \$50,000 for a public library in the town.

About 1859, David S. Stevens began the manufacture of German silver spoons at Quinniac, which was carried on until about 1870, when he removed his business to Northford, and sold his factory to Milo A. Todd, who organized a company for the manufacture of wrapping-paper under the name of the Quinniac Paper Company, in which he was the principal owner and manager. Three years later the factory burned down, and was not rebuilt.

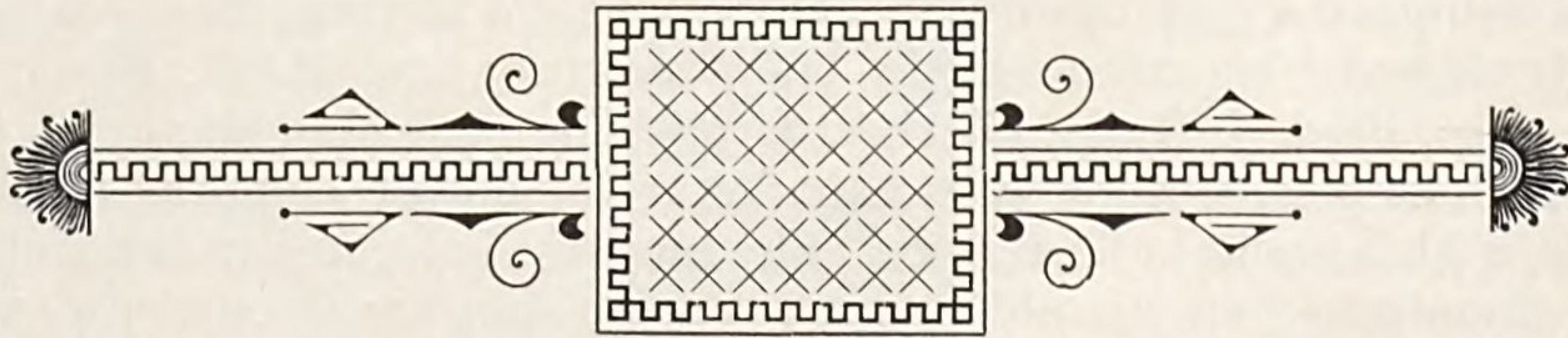
Another enterprise at Quinniac was that of STEPHEN MORSE & CO., a partnership formed about 1865 for the manufacture of iron bolts and rivets. Mr. Curtiss, the partner of Mr. Morse, soon withdrew from the business, and the latter carried it on until 1878, when he sold it to A. S. and S. E. Hotchkiss, who, under the name of Hotchkiss Brothers, have from that time continued the business, adding, in 1890, the manufacture of insect-extermimating machines.

Among the smaller enterprises recently started is the Wallingford Creamery, organized in 1887, with a capital of \$4,000. M. E. Cook is president, and Zerah P. Beach, treasurer. In May, 1894, H. E. Biggins, H. B. Hall and others, with F. L. Rodgers, of Bridgeport, organized the Biggins-Rodgers Company, for the manufacture of silver-plated flat and hollow wares and sterling silver wares, with a capital of \$25,000. They purchased a site below Ward street, adjoining the railroad, and erected and equipped a spacious frame factory, where a thriving business is now conducted. Mr. Biggins is president, Mr. Hall, secretary, and F. W. Miner, treasurer. In August, 1896, Fred. J. Hall and others formed the Hall Manufacturing Company, with F. J. Hall as president, for the manufacture of bicycle sundries, novelties and metal goods, with a capital of \$10,000. The business is located in the factory in the rear of the premises where the old Pomeroy button shop stood, on Center street.

In 1877 the Judd Manufacturing Company, organized in 1869 in New Haven, with a capital of \$75,000, to manufacture hardware, moved to Wallingford. This company erected a large plant on the west side of the railroad, a little below the station, and adjoining the Nickel Silver Company's works, and began the manufacture on a large scale of stationers' and druggists' hardware. The principal stock-

holders were Morton Judd, who had been president of the company in New Haven, and his sons, A. D., E. M. and H. L. Judd. Mr. H. L. Judd acted as the company's agent for the sale of their goods in New York. In 1886 H. L. Judd & Company, who had been engaged for some years in the manufacture of builders' and upholsterers' hardware in Brooklyn, bought out the business and plant of the Judd Manufacturing Company in Wallingford. In 1887 they moved to the Wallingford factories a part of their Brooklyn plant, and the remainder in 1896. In 1890 they added to the Wallingford factories a building one hundred and fifty by forty feet, and four stories high, for the making of brass bedsteads and a line of artistic brass goods. In 1892 another building, eighty by forty feet, four stories high, was added to meet the demand for a general enlargement of their business, and specially for the manufacture of iron bedsteads. In 1896 a still larger building was erected to accommodate the rest of the Brooklyn plant, which was now moved to Wallingford. At present the company ordinarily employs about five hundred and fifty hands. They have a store in New York, and offices in Boston, Philadelphia and Chicago. The capital is \$300,000, and the company has a considerable surplus. It has also in Chattanooga, Tenn., a large factory, built in 1890, for the manufacture of wooden curtain poles and trimmings. The principal products of the concern are: fancy art goods, upholsterers', stationers' and druggists' hardware, brass and iron bedsteads and bright wire goods. The officers are: H. L. Judd, president; A. L. Woodworth, secretary; John Day, treasurer; and W. H. Edsall, assistant-treasurer and general superintendent.

We have now briefly described all the manufacturing enterprises of Wallingford concerning which reliable information was obtainable. The prospect for the growth of the town is unusually bright. The last census shows that the ratio of increase in the population during the preceding decade was greater than that of any other town in New Haven county, with a single exception. Its population, which is now about 10,000, has quadrupled since 1850. It has a splendid public water-supply, which was brought from under the mountains four miles and a half away, at a cost of nearly \$300,000. It has fine buildings for its schools and for other public purposes; six churches, one of which cost one hundred thousand, another seventy-five thousand, and two others about forty thousand dollars each. A line of electric cars connects it with the neighboring city of Meriden. Its wide, beautifully-shaded streets, and its attractive and picturesque surroundings make it one of the most delightful places of residence in New England, while its eligible sites for manufacturing purposes and the large development which its present industries have already attained, unite to give it a prospect of rapid and permanent growth and prosperity in the future.



CHAPTER LXXXVIII.

MANUFACTURING INTERESTS OF BRIDGEPORT.

BY A. B. UNDERWOOD.

BRIDGEPORT is essentially a manufacturing city. Take from it its industries and there would be little remaining of the thrifty, active and progressive city. Those who are not actively engaged in its large and small factories are dependent more or less directly upon them. They have made Bridgeport the famous city that it is. Bridgeport, in its infancy as an incorporated city, in the years following 1836, was the home of a diversity of manufactories insignificant in comparison with those which have since brought it into prominence, but the small beginning from which many of them sprang. It was not until after the Wheeler & Wilson Manufacturing Company located here, in 1856, that the city felt the thrill of industrial life and bounded into a foremost place in the manufacturing world.

The industries which were among the very earliest enterprises of Bridgeport are now extinct, having given way to other lines. Hatting was the greatest industry of the early years, long before Bridgeport was incorporated as a city, and was continued until about four years ago, when the last large concern was dissolved. This was the widely-known company of Glover Sanford & Sons, which dated back to 1823, when Glover Sanford started in the business, having come here from Bridgewater, Litchfield county. In 1877 a modern factory three hundred and seventy-five feet in length was erected on Crescent avenue, and the business of making felt hats was prosperously carried on there for many years. When competition became close, and tariff changes made the business less profitable, the sons, who conducted the concern after the death of their father in 1878, dissolved the corporation, leaving a large factory vacant. This marked the end of hatting in Bridgeport. The factory is now occupied by the American Ordnance Company, which is more than doubling the capacity of the plant in order to accommodate their growing enterprise. Pewterware manufacturing, shirt manufacture, furniture and leather manufacture were also among the city's enterprises.

From 1856 to 1896 there were forty years of rapid growth, due largely to the diversity and magnitude of the industries which found Bridgeport suitable for a location. Immense concerns representing hundreds of thousands of dollars capital sprang up one after another. Bridgeport in 1896 is the home of a greater variety of manufacturing enterprises in proportion to its population than any other city in the United States. The number of factories and manufacturing establishments of all kinds exceeds four hundred, and the number of different branches of manufacture represented

is nearly two hundred and fifty. There are over three hundred corporations engaged in manufacture. Various branches of industry located here have attained celebrity which is world-wide, notably the Wheeler & Wilson Manufacturing Company, the Union Metallic Cartridge Company, the recent acquisition, the American Ordnance Company, the several immense corset concerns, the Bridgeport Brass Company, and a number of others which might be cited. It is better known as the home of manufactures than it is the home of the circus.

The facilities are such that it is naturally sought by manufacturers. Located a comparatively short distance from New York city, it has miles upon miles of water front. It is blessed with two harbors navigable to vessels of all draughts, and many of its great factories dot the banks of the Pequonnock river, which divides the city.

Material in iron, steel or brass, for everything pertaining to manufacturing of machinery, hardware or new inventions, can be found among the product of the city's factories, and in the line of mechanics the heaviest machine work done in the country is produced here. Besides the industries already mentioned, there are stock corporations engaged in the manufacture of shears, steel, graphophones, ammunition, heavy ordnance, chain, coach lace, crucibles, copper, heavy forgings, rubber goods, organs, pianos, typewriters, bicycles, carpets, rugs, and a diversity of other things too numerous to mention here. Bridgeport is a little manufacturing world by itself.

The making of shirts was begun here in 1836 by David and Isaac N. Judson, and has continued until the present. In 1853-4 Thaddeus Barnes, of New Haven, who began shirt-manufacture here in 1849 for C. B. Hatch & Company, of New York, erected the original building of what is now the Star Shirt Factory on Golden Hill, conducted by Hutchinson, Pierce & Company. The factory was enlarged in 1861, and the present proprietors have added to it as their prosperous business demanded. The present concern was incorporated in 1895. Its officers are: President and treasurer, Henry B. Pierce; vice-president, Ira Cole; secretary, M. T. Hutchinson; general manager, George S. Brown. Carriage-making also was one of the first industries of Bridgeport, and is continued to the present day. Hincks & Johnson began their business on Broad street in 1879. They occupy the building erected in 1831 by their predecessors, Wood Brothers. They give employment to between one hundred and fifty and two hundred hands.

THE WHITE MANUFACTURING CO., Cannon street, make coach lamps, carriage mountings and hardware. The firm started in 1832, and employs sixty hands. Its officers are: President, George H. Johnson; treasurer, William B. Hincks; secretary, H. S. Wilmot; superintendent, Thomas Boudren.

THE BRIDGEPORT COACH LACE CO., 88 John street, is capitalized at \$15,000; its officers being: President, Charles B. Buckingham; treasurer, Charles F. Wood; secretary, F. J. Narramore.

No industrial concerns have done more to bring about the fame and reputation of the city than its immense corset factories. It is a centre for the manufacture of corsets.

THE WARNER BROTHERS CO., having a capital of \$1,000,000, was organized in 1874, and incorporated twenty years later. Its immense plant covers over five acres of ground, and comprises ten buildings, the main building being four stories in height. The factory is equipped with all the improved machinery known to their line of manufacture, they being the originators of the new improved corsets in this country. The Warner Brothers Company employ eighteen hundred operatives, a majority of them women; and the owners have manifested a personal interest in the welfare and comfort of their employees by providing an institute, known as the Seaside Institute,

which is conducted in connection with their factory. Between three hundred and four hundred of their employees are served dinner here every day at special rates. The institute building is elegantly furnished, good reading is provided, and in the large hall there are wholesome evening entertainments, for the benefit principally of women. The officers of the Warner Brothers Company are: Dr. I. DeVer Warner, of Bridgeport, president; Lucius C. Warner, of New York, vice-president; DeVer H. Warner, of Bridgeport, secretary; H. F. Greenman, of Bridgeport, superintendent.

Another famous corset manufactory located here is LANGDON, BATCHELLER & CO., whose factory (but a short distance from Warner Brothers) is at Myrtle and Railroad avenues. This firm was established in 1856, its present factory having been erected twenty years later. Prior to locating here, its goods were manufactured in Paris and London. It is the oldest firm of hand-made corset manufacturers in the United States. During the Civil War its goods were made across the water, and distributed from the New York office. It originally started with from sixty to seventy-five hands, and in 1896 its full force comprises one thousand operatives, who receive in the form of wages \$1,000 a day. Over 6,000 yards of cloth are used in the production of their daily output of corsets. The company's plant covers over an acre of ground, and has about six acres of floor space. The main building is 275 feet in length, 150 feet in width, and four stories in height. In addition to this factory, there is a branch factory in New York which employs over one hundred and fifty hands. The "glove-fitting" corset of this firm is of French invention, having its birth in London during 1867 and 1868. The firm uses over 300 tons of steel annually in stays alone. The average paid for skilled hands is from \$9 to \$15 a week. The firm is composed of George C. Batcheller, George C. Miller and W. H. Batcheller; and the machines used by them are the invention of the first-named member.

THE BRIDGEPORT CORSET CO., located on Burroughs street, occupies a floor-space of seventy-five thousand feet. The business was founded in 1865, and from modest proportions has grown until in 1896 the concern employs five hundred hands. It has also a branch establishment in Birmingham, Ct., known as the Birmingham Corset Company, and the combined output of the two factories is over eighty dozens a day. The two factories are owned and operated by Birdseye, Somers & Co.

L. L. LOOMER & SONS is another one of the corset industries of Bridgeport. The firm also have a branch factory in Birmingham, England.

THOMAS P. TAYLOR, manufacturer of corset stays, employs over three hundred and fifty hands at his factory, Harral avenue and James street. This concern was organized January 1, 1893, Mr. Taylor having for many years had charge of the large corset-stay department at Warner Bros. The product of the concern includes dress-stays, bustles, hose supporters, sleeve bustles, skirt supporters, dress bones, serpentine, velvetine and hip-pads. Mr. Taylor is the sole owner of the prosperous plant, and the business is rapidly increasing.

THE LYON WAIST CO., 8 Union street, employs over one hundred skilled hands. The concern manufactures boys', ladies' and children's waists, combination belts and hose supporters. The proprietor of this concern is H. M. Lyon, and the success of the company has been largely due to the fact that every article of manufacture is his own invention, covered by letters-patent. The factory comprises six thousand square feet of floor space.

Bridgeport's greatest brass concern is the Bridgeport Brass Company, capitalized at \$150,000. The Bridgeport Brass Company have had a long and successful career, and was founded in 1865, for the manufacture of brass and copper goods of every description. Their business has grown from year to year, so that it is safe to say

that it is one of the largest manufacturing concerns in the world that produces articles in copper and brass. The plant of the company is located at the corner of Willard street and Crescent avenue, where it occupies two hundred thousand square feet of floor-space, and is as complete in every part as money and ingenuity can make it. Some idea of the immensity of the establishment may be gained from the fact that eight hundred skilled workmen are employed in the various departments. Besides the offices and factory in this city, the company have a large salesroom at No. 19 Murray street, New York city, and agencies in Boston and Philadelphia, Chicago and San Francisco. One of the specialties manufactured by the company is the "Search-Light" lantern for bicycles. The officers of the company are: Charles M. Mitchell, president; George E. Somers, vice-president; Nelson M. Beach, treasurer; F. J. Kingsbury, Jr., secretary. In no country on the globe, where oil for illuminating is used, is this vast concern unknown. In brass-rolling and brass goods of various descriptions, nearly nine-tenths of the manufactured material of the country is produced within a radius of fifty miles of this city, representing many millions of capital. They also manufacture German-silver, copper-rolling and wire goods.

THE EATON, COLE & BURNHAM CO. manufacture brass and iron fittings, and have a plant on Water street covering several acres of ground. They employ from six hundred to seven hundred hands. The president of the company is John Eaton, and vice-president E. C. Burnham.

THE BELKNAP MANUFACTURING CO. are producers of brass, iron, steam and water goods, check-valves and hose nozzles. The capital stock of the company is \$30,000. Its officers are: President, Wm. L. Belknap; treasurer, Charles Belknap; secretary, Maynard De Witt.

THE GAYNOR & MITCHELL CO., located on water street, are manufacturers of special brass goods, turning, stamping, pressing, plating and tool-making. The concern had its inception in 1887, and is composed of D. J. Gaynor and J. F. Gaynor, the other partner, Mr. Mitchell, having retired in 1888.

Foremost among the city's industrial concerns is THE UNION METALLIC CARTRIDGE COMPANY, whose products are known all over the world wherever modern fire-arms are used. The factory is the most extensive of any devoted to this business in the country, and is located on East Washington and Barnum avenues. Altogether, the plant covers a ground space of four acres, mostly filled with machinery of the latest and most improved type. The product consists of military and sporting ammunition of every description, and the company have executed many contracts for foreign governments. Constant improvements are being made, among the recent ones being cartridges of various calibre for military, sporting rifles and revolvers, in which smokeless powder is used. The company employs in the neighborhood of one thousand and two hundred hands, and the daily capacity of the work amounts up into the hundreds of thousands. The business was organized in 1866, and in 1867 was incorporated into a stock company of \$300,000 capital. It is controlled by Hartley, Graham & Co., and Marcellus Hartley is its president and treasurer; W. J. Bruff, vice-president; Malcom Graham, secretary; and A. J. Hobbs, general manager.

An important addition to Bridgeport's industries is the great AMERICAN ORDNANCE COMPANY, manufacturers of heavy ordnance. The company was incorporated in 1896, with a capital of \$2,500,000, and after inspecting locations offered in several large cities, decided to occupy the hat factory of Glover Sanford & Sons, on Crescent avenue, directly across the railroad tracks from the Union Metallic Cartridge Company. They have already erected a large, two-story brick factory, adjoining the hat factory, and have not yet completed the plant, which is to be one of the largest in

Bridgeport. Employment will be given to nearly two thousand in the near future. The scope of the new company is a wide one. They will manufacture all the heavy ordnance for the United States Government. The officers are: President, Gen. Albert Ordway; vice-president, Edward W. Very; assistant treasurer, J. E. Wilson.

THE BRIDGEPORT MALLEABLE IRON CO. have a large plant on Railroad avenue. It is one of the largest corporations in the city, employing about five hundred hands. It was established by Henry Atwater in 1878, on a capital of \$30,000, and employment was given less than twenty-five hands. In May, 1884, there was a reorganization with a capital of \$200,000. Their buildings cover almost five acres of ground. The concern makes malleable and gray iron castings, and is one of the largest of its kind in the East. Its officers are: President, J. H. Whittemore, Naugatuck; vice-president, W. K. Chase; treasurer, W. A. Grippin; secretary, Henry Atwater; and general superintendent, A. S. Wells.

THE BRIDGEPORT FORGE COMPANY is one of the substantial concerns of the city, and is located at the foot of Howard avenue. It was incorporated in 1883, and was the pioneer of the manufactories that now flourish in that particular locality. At that time the section was covered with underbrush, and totally unlike the busy quarter that now resounds with the hum of wheels and the buzz of industry. The Bridgeport Forge Company manufactures wrought iron and steel forgings in forged, rough-dressed or finished condition, and makes a specialty of marine work. They possess ample facilities for the manufacture of light and very heavy forgings, and their reputation as the makers of first-class material is not excelled in the country. The officers are as follows: Franklin Farrel, of Ansonia, president; Benjamin Fletcher, treasurer and general manager; Thomas Hallen, secretary.

THE BRIDGEPORT COPPER COMPANY is a prosperous concern located at the foot of Howard avenue. From a small beginning, about ten years ago, the firm has grown to be one of the largest industries in the city. The copper is received from Montana in pig form; and here it is refined and made into electrolytic copper in the shape of wire bars, cake and ingot. It is officered as follows: A. F. Migeon, of Torrington, president; J. H. Matthews, treasurer and secretary; Charles E. Brown, assistant secretary.

One of the city's oldest concerns is the PACIFIC IRON WORKS of P. H. Skidmore & Sons, which was established in 1853 for the manufacture of steam engines. The company's plant on Housatonic avenue is an extensive one, including almost a whole block. They are general machinists, and their product includes steam engines, boilers, hoisting engines, elevators, shafting-hangers, pulleys, and they give employment to one hundred and twenty-five skilled hands. Their trade extends all over the United States, into South America, Mexico and Cuba. They have also manufactured engines for mining and hoisting, which are in use in the anthracite regions. The plant is a model in its line. Their facilities for heavy machinery of all kinds are unsurpassed. Its personal direction falls to the hands of Philo H. Skidmore, Jr., although the company is known as P. H. Skidmore & Sons.

THE SMITH & EGGE MANUFACTURING COMPANY, located at 188 Lafayette street, was organized in 1874, but not incorporated until 1877. The firm is widely known on account of its dealings with the United States government. For years they manufactured all the post-office mail-locks in use in the country, and originated the system of carrying the mail-key attached to the agent or carrier by a length of chain. They have supplied the government with several hundred thousand feet of chain. This firm has also furnished Mexico, Hayti, Chili and St. Domingo with mail-locks and keys. They manufacture for the government, postal punches, cord-

fasteners and label cases for the post-office department, and a variety of other articles, such as giant-padlocks, drill-checks, metal sash-chains, buttonhole attachments, and other similar products. The original firm consisted of Mr. Friend W. Smith and Mr. Frederick Egge. Its officers are: F. W. Smith, president; secretary and treasurer, Frederick A. Booth, New York; assistant secretary, R. H. Broderick. Employment is given to over two hundred hands.

THE CANFIELD RUBBER CO. is another of the city's industries which is firm as a rock in the financial world, its president being the Hon. Ratcliffe Hicks. The present company was organized in 1886, and has a capital of a quarter of a million dollars, its annual volume of business amounting to over a million. The Canfield Rubber Company manufactures but a single article, the seamless dress shield, which bears the name of the inventor and founder of the company, the late Jared H. Canfield. The factory on Railroad avenue is a massive structure one hundred and fifty feet square and four stories high. Several hundred hands are employed steadily through the year. Its secretary and treasurer is Charles F. Holcomb, a progressive business man. Another prosperous rubber manufactory is that on Myrtle avenue, conducted by Horace O. Canfield. The company was started by him in 1889, and has had an unbroken record of prosperity. Half a hundred hands are employed in the manufacture of bath tub plugs of white rubber, closet flanges, plunger rings, rubber-headed fender nails, basin and sink gaskets, and, in fact, everything in the line of rubber goods used for mechanical or sanitary purposes.

In the carpet industry the READ CARPET COMPANY stands as one of the noteworthy industries of the city. This establishment had its inception in 1869, when it was founded by the late Charles A. and the late David M. Read, and was incorporated in 1873 with a capital of \$200,000. The company occupy a large brick factory on Middle street, which is equipped with the latest machinery, including sixty-six looms. Employment is furnished nearly two hundred operatives, and the business, in round numbers, amounts to \$500,000 annually. The concern manufactures carpets and rugs, and their business operations extend all over the United States and even to the Sandwich Islands. The officers of the company are: M. W. Seymour, president; David F. Read, secretary, and Fred. W. Read, treasurer. Fred. W. Read has personal supervision of the manufacturing and David F. Read of the selling.

THE HOLMES & EDWARDS SILVER CO. was organized in 1882, and its capital is \$400,000. George C. Edwards is president, treasurer and general manager; and John Cummings, secretary. The factory on Seaview avenue is modern in construction and equipment, and within it three hundred persons find employment. This company manufactures sterling silver inlaid spoons, forks and all kinds of table flatware which for lasting qualities and durability are equal to the same articles when made of solid silver. This process of inlaying with sterling silver is a patented one and is owned exclusively by the Holmes & Edwards Company. The metal blank is of the best nickel-silver and at the exposed points, that is the places of greatest wear, it is melted out and the cavity thus made is filled with sterling silver. The spoon is then shaped, finished and plated, five times the quantity of silver being used as in what is known as standard plate. Among the articles manufactured by the Holmes & Edwards Silver Company are tea spoons, dessert spoons, table spoons, medium forks, dessert forks, sugar shells, butter knives, coffee spoons, five o'clock tea spoons, and orange spoons, as well as fancy pieces in extra sectional or XIV. plate, such as salt spoons, mustard spoons, child's knives and forks, oyster forks, sugar tongs, pickle forks, nut picks, cheese scoops, berry spoons, bonbon tongs, ladles, etc.

Closely identified with it is the BRIDGEPORT CHAIN COMPANY, whose factory

adjoins, and of which George C. Edwards is also president and treasurer. Its secretary is Charles L. Hill. The company was incorporated in 1886 and has thirty thousand feet of floor room in its factory. It gives employment to forty-five workmen. Its chief product is the Triumph chain, whose links, unlike the ordinary article, are not welded, but have a twisted joint.

THE ARMSTRONG CO. was founded more than a quarter of a century ago, and was incorporated in 1885. The estate of the late Frank Armstrong owns nearly all the stock, and its officers are: President, Mrs. Elizabeth Armstrong; secretary, treasurer and general manager, C. H. Armstrong. The company has a large and convenient factory four stories in height, and gives employment to seventy-five hands. The product of the concern is gas and steam-fitters' tools of all kinds.

THE BRIDGEPORT CRUCIBLE CO. was organized in 1887 and has prospered. The company has a capital stock of \$25,000. Its president is E. G. Burnham, and treasurer and general manager, W. T. McFarlane. The company employ forty operatives. The company manufacture crucibles, plumbago, stove-paste and other similar articles.

THE BRIDGEPORT PATENT LEATHER MANUFACTURING CO., located on Cannon street, dates its origin to 1849, when Bridgeport was in its infancy. The concern makes a specialty of enamel leather for carriages, harnesses and shoes, and the territory covered by them in their business operations comprises all of the United States and Canada. The company employ about fifty hands. It is capitalized at \$100,000, and its officers are: President and treasurer, S. J. Patterson; secretary and general superintendent, S. H. Patterson.

Prominent among the silk manufacturers of the country are the BRIDGEPORT SILK COMPANY, which was founded in 1880 to produce high-grade dye silks, dress, carriage and umbrella silks of various degrees of texture and weave. The plant, on Railroad avenue, comprises a two-story building having a 400 feet frontage, and employment is furnished 160 operatives. It was originally started with only 69 hand-loom, and all goods manufactured at that time were sold under foreign labels, owing to the feeling that silks could not be manufactured successfully in this country. The capacity of the plant was doubled in 1896. Seventy-five per cent. of the goods now made are sold in America. The company is composed of M. C. and F. M. Patterson.

With the introduction of the typewriter came the YOST TYPEWRITING MACHINE COMPANY. The main plant consists of a five-story building, 250 feet in length, and the whole covers nearly twenty acres of ground. It is a modern factory, equipped with electrical appliances. The company was organized in 1887, removed to Bridgeport a year later, and its output has increased rapidly. The weekly capacity is 200 writing machines. Over 300 are employed. The business aggregates nearly \$30,000 per annum, and embraces as a constituency the civilized world. The typewriter industry is a comparatively new one, but the company is now numbered among the city's most important.

THE SALT'S TEXTILE MANUFACTURING CO. are located in the old Howe Machine Company's factory on Kossuth street. This concern had its origin in 1893 through the absorption and purchase of the American branch of the influential English firm of Sir Titus Salt, Bart., Sons & Co. The concern employs over 400 skilled and expert operatives in the manufacture of pile fabrics, plushes, velvets and seals. Their business is chiefly in the United States and Canada. The company is capitalized at \$100,000 and has the following officers: President, F. E. Kip; vice-president, Frederick Rhodes; treasurer, C. F. Stead. It is one of the largest textile industries in the country.

THE BRIDGEPORT ELASTIC WEB CO. has a commodious plant on John street. This company manufactures goring for use in shoes, and their product was awarded a gold medal at the World's Fair in Chicago and the Atlanta Exposition. The company was organized in 1880, and employs over two hundred hands. Edward Sterling, the president, and Edward D. Frisewell, the superintendent, are enterprising business men.

THE ASHCROFT MANUFACTURING CO. moved from Boston to Bridgeport in 1885, and erected a factory on Kossuth street, which is six thousand two hundred feet by fifty feet, and four stories in height. Their product is steam and water gauges and other brass goods, and they employ between two hundred and three hundred hands. The company was incorporated with a capital stock of \$200,000 in 1886, and its officers are: President and treasurer, H. S. Manning, New York; vice-president, Charles A. Moore, New York; secretary and assistant-treasurer, Martin A. Luscomb, Bridgeport.

THE WHEEL AND WOOD BENDING CO., 77 John street, manufacture wheels, hubs, spokes and wood-work generally for carriages. The business was started in 1854, and the present company was organized in 1866. The officers are: President, Horace Smith; treasurer, Eli C. Smith; secretary, H. W. Smith. Its capital stock is \$60,000.

THE AMERICAN GRAPHOPHONE CO. was incorporated in 1886, with a capital stock of \$1,200,000. They manufacture graphophones and graphophone supplies, the factory being on Railroad avenue, at the West End. The officers are: President and general manager, Edward D. Easton, Washington, D. C.; vice-president, William E. Bond, New York; secretary, William H. Smith, Washington, D. C.; treasurer, H. A. Budlong, Washington, D. C.

THE BRIDGEPORT DEOXYDIZED BRONZE AND METAL CO., Railroad avenue, corner of Park avenue, was incorporated in 1892, with a capital of \$75,000. They manufacture deoxydized bronze, copper and composition castings, Babbett and other metals. The officers are: President, F. W. Smith; secretary, D. C. Sanford; treasurer and manager, C. N. Choate.

THE BRIDGEPORT ELECTRIC LIGHT CO. has a capital of \$250,000, and was incorporated in 1884. The officers are: President and secretary, James English; vice-president, E. G. Burnham; treasurer, L. S. Catlin.

THE BRIDGEPORT MANUFACTURING CO., 32 Knowlton street, was incorporated in 1895 with a capital of \$12,000. The officers are: President, Willis F. Hobbs; secretary, Anton Trunk; treasurer, E. N. Sperry.

THE BRIDGEPORT SILVER-PLATE CO., Railroad avenue, corner of Mountain Grove street, was organized and incorporated in January, 1891, having a capital stock of \$30,000. Its officers are: President, George A. Learoyd, Boston; treasurer, F. H. MacFarlane; secretary, Thomas E. MacFarlane.

THE BRIDGEPORT UTILIZATION CO., located on the water front, at the foot of Bostwick avenue, was organized and incorporated in 1895 for the reduction of garbage. The concern use the Holthaus system and have a ten-year contract to dispose of the city's offal. Its officers are: President, Samuel M. Janney, New York; secretary and treasurer, John F. Dutton, New York.

THE BRYANT ELECTRIC CO., 675 State street, manufacture electric switches and specialties of all kinds. The company has a capital stock of \$50,000, and was incorporated July 5, 1889. The officers are: President, L. W. Eaton; vice-president, E. W. Marsh; secretary, H. A. Hubbell; treasurer and manager, W. C. Bryant.

BURNS, SILVER & CO., 131 Railroad avenue, is a widely-known concern in the

railway world, their product consisting of car-springs, electric and street-car ratchet brake handles, cabinet trimmings, and various railway specialties. The company was organized in 1895, and has a capital stock of \$100,000. The president and treasurer is S. A. Burns; vice-president, Charles A. Cook; secretary, J. B. McKewan, New York.

THE CHAQUETTE POWER CO., organized September 24, 1895, has a capital of \$75,000. The officers are: President, Daniel Davenport; secretary, Ephraim Chaquette; treasurer, William H. O'Hara.

THE CONNECTICUT WEB CO. succeeded the B. Goodman Company, and was organized in 1894. The capital stock is \$50,000. The officers are: President, L. Rothschild; secretary and treasurer, L. Newberger. They are located on Knowlton street.

THE CONSOLIDATED SAFETY VALVE CO., organized in 1879, are located in the factory at Howe street, corner of Kossuth. The stock is \$100,000, and the officers are: President, Charles A. Moore, New York; secretary and treasurer, Martin Luscomb; assistant treasurer, H. S. Manning.

THE CORNWALL & PATTERSON CO. came here in 1879, and have a capital stock of \$20,000. Their chief articles of manufacture are piano and organ hardware, and a line of baseball goods. The officers are: President, James T. Patterson; secretary and treasurer, J. B. Cornwall.

THE DAVID B. CROCKETT CO. manufacture varnish. The company has a capital of \$100,000, and was incorporated in 1884. Officers: President, Samuel Swan; vice-president, W. D. Lent, New York; secretary and treasurer, Chas. F. Towner.

THE PARROTT VARNISH CO., located in North Bridgeport, was organized in 1891 with a capital of \$150,000. The officers are: President, H. R. Parrott; secretary and treasurer, F. W. Parrott.

THE DICKERMAN EMERY WHEEL AND MACHINE CO., located on Howard avenue, manufacture lathes and tool-grinders of various kinds. The concern was incorporated November 3, 1894, with a capital of \$40,000, and its officers are: President, E. L. Dickerman; vice-pres., S. H. Hunter; secretary and treasurer, G. H. Strickland.

THE JENNINGS BROS. MANUFACTURING CO., manufacturers of jewelry, have a capital stock of \$100,000. The concern was incorporated in 1896 with these officers: President, E. M. Jennings; treasurer, E. A. Jennings; secretary, H. A. Jennings.

THE MILLER WIRE SPRING CO., capital \$25,000, are located in the factory of the Bridgeport Chain Company. The company was incorporated in 1892. The officers are: President, George C. Edwards; secretary, F. D. Baker.

THE NEW ENGLAND SEWER-PIPE CO., on Wilmot avenue, succeeded the old Bridgeport Vitriified Pipe Company. It was incorporated in 1892 with a capital stock of \$50,000, and has these officers: President, H. T. Hawley; secretary and treasurer, S. L. Pewtress.

THE R. E. PARSONS CO., makers of grey iron castings, machinery, pulleys, piano hardware and other articles, are located on Barnum avenue. It was incorporated in January, 1893, with a capital stock of \$24,000. President, J. W. Cottrell; secretary and treasurer, Charles E. Williams.

THE SPRING PERCH CO., 114 John street, are makers of carriage springs. The company is capitalized at \$50,000, and has these officers: President, E. Sterling; secretary, E. W. Marsh; treasurer, F. B. Hawley.

THE WALDO FOUNDRY, Railroad avenue, West End, was organized in 1893 with a capital of \$50,000. Its officers are: President, J. A. Bush, New York; treasurer, A. G. Van Cleve, New York; secretary, Leonard Waldo, Bridgeport.

IVES & WILLIAMS, Broad street and Railroad avenue, are engaged in the manufacture of mechanical toys. The original firm was established in 1868, by E. R. Ives and Cornelius Blakeslee, and E. G. Williams, of New York, was admitted in 1880. In May, 1895, there was a reorganization by Messrs. Ives and Williams, and the concern was capitalized at \$50,000. The officers are: President, E. R. Ives; secretary, William L. Horr; treasurer, Edward G. Williams.

THE BULLARD MACHINE TOOL WORKS, at Broad street and Railroad avenue, was established in 1880 by E. P. Bullard, who came from New York. They employ nearly one hundred hands in the manufacture of lathes. The capital stock is \$250,000, the present concern having been incorporated in September, 1894. Its officers are: President, E. P. Bullard; treasurer, H. A. V. Post; secretary and assistant treasurer, A. H. Bullard.

THE BRIDGEPORT POWER CO., Water street, corner of South avenue, was incorporated in January, 1884, with a capital stock of \$65,000. Besides their specialty in the manufacture of squares they furnish power for other manufactories. The officers are: President, Courtland Kelsey; secretary and treasurer, F. K. Bradley.

THE COMPRESSED PAPER BOX CO., on Thompson street, was incorporated December 3, 1883. Its capital is \$50,000, and officers: President, Jonathan Godfrey; secretary and treasurer, W. E. Bailie. They make patent pressed paper boxes of all descriptions, and paper cans.

THE KNAPP & COWLES MANUFACTURING CO., have occupied the brick factory at Railroad avenue and Garden street since November, 1884. The company make many kinds of screw-drivers, mincing knives, garden tools, etc. The company has a capital of \$30,000. Its officers are: President, Charles G. Sanford; vice-president, William Suggett; secretary, G. M. Jewett; treasurer, Philip Manchester.

THE WILMOT & HOBBS MANUFACTURING CO., at Hancock and Railroad avenues, was incorporated in 1884, and has an authorized capital of \$250,000. They manufacture cold rolled-iron in many forms, and various articles of iron, steel, and copper. The officers are: President, S. R. Wilmot; vice-president and treasurer, F. A. Wilmot; secretary, P. L. Bryning.

THE FOLLANSBEE MACHINE WORKS produce light machinery, and have been located near the railroad station since January 1, 1884. John S. Follansbee is the proprietor.

THE COULTER & MCKENZIE CO., having a capital stock of \$40,000, manufacture light and heavy machine shafting, hangers and pulleys. It was incorporated in 1881, and the officers are: President, Thomas Coulter; treasurer, E. J. Morgan; secretary, Frank L. Cogill.

THE ACME SHEAR CO., on Knowlton street, was established in 1882 with a capital stock of \$5,000. Their product is plain and ornamental nickel-plated shears, scissors, nut crackers, ice picks and other specialties. The officers are: President, Dwight Wheeler; treasurer, D. C. Wheeler; secretary, H. E. French.

THE HOUSE CORSET MACHINERY CO., located on East Washington avenue, was incorporated in 1883, and has a capital stock of \$60,000. About twenty-five hands are employed. They manufacture corset machinery of all kinds. The officers are: President, J. Alfred House; secretary, E. H. Roth; treasurer, C. H. Diamond.

JOEL FARIST is the founder of the large works bearing his name, The Farist Steel Company, located on East Main street. The company, originally organized in Windsor Locks in 1860, came here twelve years later. The plant now extends over several acres of ground, and is advantageously situated on a jut of land extending out into the harbor. They make all descriptions of cast steel, hammered or rolled

spiral and elliptic car springs, and other specialties. The company is capitalized at \$295,000. Its officers are : President, Joel Farist ; secretary and treasurer, George Windsor.

THE MONUMENTAL BRONZE CO. was started in 1874, but was not organized into the present company until 1879, when it was capitalized at \$150,000. The concern manufacture monuments and statuary. The officers are : President, A. S. Parsons ; secretary and treasurer, W. E. Phillips.

THE HATCH & HOLMES MANUFACTURING CO. have a large factory on Kossuth street and employ 125 operatives. The company is capitalized at \$30,000 and was incorporated in 1886, its present officers being : R. B. Lacy, president ; and G. C. Hatch, secretary and treasurer. Their present plant cost about \$50,000, and is one of the most complete of its kind to be found anywhere. Its capacity is 175 dozen high-grade pocket knives a day, this being the main product of the company. They also manufacture special tools and machinery.

CURTIS & CURTIS, located on Railroad avenue, corner of Garden street, have a modern factory. Their product is tools for the gas-fitting and plumbing business. The firm was organized in 1882 by Roderick P. Curtis and Lewis B. Curtis, the present proprietors. About thirty hands are employed.

THE FAIRFIELD CHEMICAL WORKS, at Black Rock, are manufacturers of acids and chemicals in large quantities. The officers are : President and treasurer, Louis S. Wolf, New York ; secretary, J. D. Bullard, Jr., New York ; superintendent, George H. Graves, Bridgeport.

GRAHAM, COLLIGAN & CO., on Bruce avenue, are brass and bronze founders, and also make a specialty of Babbitt metals.

THE LIBERTY CYCLE CO. established a branch factory here in 1895, occupying the old Frary cutlery factory belonging to the Wheeler & Wilson Company. The company are makers of the Liberty bicycle, a high-grade wheel.

The oyster industry forms no small part of the business of Bridgeport. It is off this coast and Stratford that the great natural bed is located, and between two hundred and three hundred oyster sloops work upon this vast bed every season, and the amount of seed oysters taken is almost half a million a season. The Bridgeport bed comprises three hundred and thirty-four acres, while the Stratford bed adjoining it contains three thousand and fifty-five acres. Besides these there are thousands of acres of private grounds, owned in cities all along the coast. There are seventy thousand acres of submerged "oyster farms," owned by private planters who hold from the state, located between Greenwich and Branford. There are about four hundred individual planters whose holdings run from ten acres to six thousand and over. There are seventy steamers and two hundred sailing vessels in the business, which involves from \$3,000,000 to \$4,000,000 capital, and from four to five thousand persons engaged in it. Of this invested capital the larger part is invested in Bridgeport, which is really the centre of the seed oyster business of the state.

Among the influential oyster firms of the state is the MAY OYSTER COMPANY of this city, which owns nearly fifteen hundred acres of ground. This concern is among the first six in the state in the number of bushels planted, aggregating one hundred and thirty-five thousand bushels in 1896.

Another firm of planters who do an extensive business are the H. J. LEWIS OYSTER COMPANY, located at the foot of Pembroke street. This company was founded in 1868 with a capital stock of \$100,000, and now has the largest extent of oyster grounds in the country, their taxes amounting to more than those paid by any other. Their holdings comprise eight thousand seven hundred and nineteen acres in Long

Island Sound. They raise seed oysters for other planters, and export annually large quantities of the bivalves to Europe. The president of the company is Henry J. Lewis.

MARSHALL E. MORRIS is also another large planter who has conducted a prosperous business many years. His holdings aggregate nearly one thousand and five hundred acres. Other local planters are THE STRATFORD OYSTER COMPANY, and P. F. West. All the planters from other cities own grounds off Bridgeport.

The principal concerns representing the lumber industry in Bridgeport number five. The largest of these is THE SWORDS LUMBER COMPANY on East Washington avenue, whose immense mills and yards cover over seven acres of land, employment being furnished to over two hundred men. The company has a large wharfage on the river front, giving capacity to unload six or seven large vessels at once. Their manufactured product comprises sash, doors, blinds, mouldings, and boxes. The company was organized January 1, 1887, with a capital stock of \$200,000. The officers are: President, F. H. Bassett; treasurer, E. D. Alvord; secretary, W. C. Haight.

Other large concerns are THE A. W. BURRITT COMPANY, capitalized at \$50,000, and incorporated in 1893. The officers are: President and treasurer, A. W. Burritt; vice-president, P. L. Fox.

THE J. L. TOMLINSON LUMBER CO. have a capital stock of \$25,000. The officers are: President, R. E. Platt; secretary and treasurer, J. L. Tomlinson.

THE WEST END LUMBER CO., incorporated in 1895, has a capital stock of \$20,000. The officers are: President, R. S. Neithercut; vice-president, Walter S. Cash; secretary and treasurer, Charles H. Buck.

THE W. H. WILSON LUMBER & MILLING CO. was incorporated in 1894. Its capital stock is \$10,000, and the officers are: President, H. W. Wilson; treasurer, Jacob Keifer; secretary, C. V. E. Brothwell.

THE GEORGE W. LONGSTAFF CO., located at the West End at Railroad and Iranistan avenues, is another well-known industry. They are architects and builders, and the head of the concern is George W. Longstaff, a man of long experience in this line of business.

THE KINSLEY MANUFACTURING CO. have gained a wide reputation in the production of steam chime whistles. Several of the large buildings at the Chicago Fair were furnished with their whistles. The head of the company is Frank Kinsley, a man of much business ability.

THE CONNECTICUT BREWERIES CO. is located in Bridgeport, their main plant being that of A. Wintter & Company. Together with the Menden plant, owned by the company, this corporation is capitalized at \$700,000, and their output is nearly eighty thousand barrels a year. The officers of the Connecticut Breweries Company are: President, P. W. Wren; secretary and treasurer, A. Wintter; general manager, J. H. McMahon. The principal owners of the company are McMahon, Wren & Company, wholesalers. Bridgeport also has two other large breweries, ECKART BROTHERS, and HARTMAN'S, both employing many hands.

WHEELER & WILSON MANUFACTURING CO.—The art of sewing by machinery, essentially American in its origin and development, is now hardly half a century old, but it has wrought a wonderful revolution in one of the most important departments of industry throughout the civilized world. Less than fifty years ago it was necessary to deliver sewing machines to users secretly or under cover, to avoid violence at the hands of misguided champions of the rights of labor, who zealously maintained that such a labor-saving machine would destroy the occupation of seam-

stresses. At the present time, where one seamstress was then employed, there are scores of operatives using sewing machines on every kind of material capable of being stitched, receiving larger wages and turning out an enormous product at greatly reduced cost. In fact, various articles of clothing can now be purchased by consumers for less than the materials would cost at retail. With the foundation and growth of this art are indissolubly associated the names of "Wheeler" and "Wilson."

In 1847, Allen B. Wilson (born at Willett, Cortlandt county, N. Y., October 18, 1824, died at Woodmont, Conn., April 29, 1888,) while working as a journeyman cabinet-maker at Adrian, Mich., conceived the idea of a sewing machine. He certainly had never seen a sewing machine at that time, and it is said that he had never even heard of one. He completed drawings of his machine in the latter part of 1848 at Pittsfield, Mass., where he was then employed at his trade. He commenced the construction of his machine February 3, 1849, and completed it with his own hands about the first of the following April. With this machine were made dress-waists and other articles requiring fine sewing with straight and curved seams. He built another machine of the same type, but of better construction, at North Adams, Mass., in May of the same year. The United States patent for this machine was issued November 12, 1850. The peculiar features of it were a two-pointed shuttle and a two-motion feed. A stitch was made at each forward and each backward motion of the shuttle, while the feed motion was the first that enabled a machine to sew continuous seams of any required length, straight or of any desired degree of angle or curvature.

Not satisfied with his shuttle, Wilson sought for some more efficient device, and on August 12, 1851, a patent was issued for a machine of his invention, containing a rotating hook and reciprocating bobbin, with a segmental screw-thread feed. Improving upon this, he obtained, June 15, 1852, a patent for a machine with rotating hook and stationary bobbin. In the specification of this patent, he described his celebrated four-motion feed which was embodied in the machine. For this last feature a patent was granted to him December 19, 1854.

The four patents above mentioned are all that were ever issued for Wilson's inventions pertaining to sewing-machines, but they covered broadly the fundamental mechanism of what is known as the Wheeler & Wilson system of rotary hook lock-stitch machines. His four-motion feed has been almost universally adopted in sewing-machines of all systems, and sewing-machines constructed conformably with his later patents were the first ever introduced into families for practical use.

Ingenious and original inventor as Wilson was, he was far from being a practical business man. The industrial and commercial success of his inventions was due almost entirely to the sagacity and the organizing and administrative ability of Nathaniel Wheeler.

Mr. Wheeler (born at Watertown, Conn., September 7, 1820) was, at the time of Wilson's earliest inventions, a member and the manager of the firm of Warren, Wheeler & Woodruff, manufacturers of buckles, buttons, and other small metallic wares, at the place of his birth. On one of his business visits to New York city, in December, 1850, Mr. Wheeler saw on exhibition one of Wilson's sewing-machines, and soon contracted, with the firm then controlling Wilson's earliest patent, to build five hundred of them at the factory of his firm, and engaged Mr. Wilson to superintend their manufacture. For good and sufficient reasons this contract was never completely performed, but Warren, Wheeler, Woodruff and Wilson formed a co-partnership, under the name of "Wheeler, Wilson & Co.," for exploiting Wilson's inventions.

They manufactured the original Wheeler & Wilson machine with rotating hook, stationary bobbin and four-motion feed, which was made a practical success in factories and in the household by the intelligent and persevering efforts of Mr. Wheeler.

This copartnership was succeeded by the Wheeler & Wilson Manufacturing Company, organized in October, 1853, as a joint-stock company under the general law of the state of Connecticut. The officers of the company at its organization were: Alanson Warren, president; George P. Woodruff, secretary and treasurer, and Nathaniel Wheeler, general manager. In 1855 Mr. Warren resigned and was succeeded by Mr. Wheeler, who held the office of president of the company thereafter as long as he lived. In the same year William H. Perry succeeded Mr. Woodruff as secretary and treasurer.

In 1856 the factory of the company was removed from Watertown to Bridgeport, where its works now are, and in June, 1864, a special charter was granted to the company by act of the legislature.

The factories of the company cover some eight acres of ground and usually afford employment for about twelve hundred men.

The sewing machine, as originally constructed conformably with the Wilson patents, was but the germ of the Wheeler & Wilson system of machines. Successive inventors, in the employ of the company, have from time to time so modified the construction, added so many ingenious devices, and so expanded the scope of the machine, devising also various machines for special kinds of work, that most of the Wheeler & Wilson machines of the present day would not be recognized by the ordinary observer as outgrowths of the original. Among the inventors who have contributed to this development, may be mentioned James A. House, George H. Dimond, W. F. Dial, A. Steward, F. W. Ostrom, and, not least, Nathaniel Wheeler himself.

In recognition of his eminent services in founding and promoting the art of mechanical sewing, Nathaniel Wheeler was, in 1873, honored by the Emperor of Austria with the Knight's Cross of the Order of Francis Joseph, and in 1889 he was decorated with the Cross of the Legion of Honor of the Republic of France. He died at Bridgeport, Conn., December 31, 1893, and was soon after succeeded in the presidency by his son, Samuel H. Wheeler.

The executive officers of the company at the present time (January, 1897) are: Samuel H. Wheeler, president; Isaac Holden, vice-president; and Frederic Hurd, secretary and treasurer.



CHAPTER LXXXIX.

THE BANKS AND BANKING INDUSTRY OF BRIDGEPORT.

BY WILLIAM T. HINCKS.

THERE is no surer criterion of the growth and advancement of a community than the prosperity of its banks. Money is the life-blood of trade. If its quality is sound, its circulation active, the business system is in good order and healthful. But as the human system requires the heart to drive the blood through its veins and arteries—now gathering it in after its progress through the members, refreshing it and starting it anew on its journey—so the business system requires a heart, or some similar agency, to perform a like work within itself. And where can such a business and financial heart be found, except in the banks? What other agency can so efficiently respond to the demands of the community, in times of plenty and in times of stringency, and can so well maintain that equipoise so essential to the transaction of successful business operations?

We started with the general proposition that the banks are the indices of the prosperity of the community. While this may need some slight qualification, it is, in the main, true. They are in such close contact with the business interests of their locality, holding the pulse and listening to the beating of the financial heart, as it were, that the prosperity or adversity of the community is, of necessity almost, mirrored in their condition. Let a city thrive and its banks are prosperous. Let it droop, and the banks will wither.

But the application of the principle must be made locally. This article relates to the banks and banking interests of Bridgeport. Does the proposition fit here? Has the young city of Bridgeport fared well in the struggle? Has it grown and thriven beyond all reasonable expectations, and that in a healthy, solid manner? The answer is undeniably, yes. Have its banking interests kept pace with the growth and increase of the city? Have its financial institutions prospered with the city's prosperity? They should have, if our theorem is true. The purpose of this article is to show, briefly, that they have.

Bridgeport has five national and four savings banks in actual operation. A fifth savings bank has been organized and chartered, but has not, as yet, entered into active business. Four private firms receive and allow interest on deposits, transacting a general banking business. Building and loan associations abound.

The history of the local banks discloses nothing of an unusual or exciting nature. The career of all has been along the same lines. All starting in a modest and unpretentious way, they have progressed gradually, steadily, safely. Through one stage after another they have gone in the same manner, meeting new situations as they arose, confronting new difficulties, surmounting new obstacles. To write of

them in brief, is to give a short sketch of their establishment, their officers, their status to-day. The years in which they have done business must, for the most part, be allowed to pass with the general statement that in them nothing worthy of special mention took place, except that they continued to grow and increase.

The plan of this article will be, in touching upon the history of the various banks, to treat of the National first, next of the Savings, and last of the Private banks. In these several classes, they will be taken up in the order of their establishment.

THE BRIDGEPORT NATIONAL BANK dates back to 1806. At that time, there were but five incorporated institutions of the kind in the state, three of which had been chartered in 1792; one in 1795, and the other in 1796. Bridgeport, as such, was then in its infancy. It was only six years before that it had been created a borough by the General Assembly. Its territorial limits were very narrow. Practically, all the business was on Water street, along the docks, and the residential section extended but a short distance to the west and south. Prior to its creation as a borough, the settlement had been known as Newfield. Its business was wholly commercial, and was made up chiefly of the coasting and carrying trade. But the young community was full of enterprise, and in the early years of its independent existence it felt the need of a bank.

So, in October, 1806, the General Assembly granted a charter, and the pioneer bank of the little community commenced its existence. The scheme of formation was as follows: The capital stock consisted of \$200,000, divided into one thousand shares of two hundred dollars each. Of this, five per cent was payable upon subscription, twenty per cent. within sixty days from date of subscription, and the balance at the call of the directors.

The whole stock was speedily taken, thanks to the large subscription of Dr. Isaac Bronson, of Greenfield Hill, who, after giving all who desired a chance to subscribe for such amounts as they saw fit, came forward at the close, and took the six hundred and sixty-five shares still remaining—thus constituting himself the owner of the majority of the stock in the enterprise. The other stockholders were less venturesome; they subscribed in small blocks. The three hundred and forty-four shares, over and above Dr. Bronson's six hundred and fifty-six, were divided among sixty-seven subscribers, thus making the average subscription scarcely over five shares; and of these sixty-seven shareholders twelve only were residents of Bridgeport, and they owned but seventy-eight shares in the aggregate. So it will readily be seen that while the young bank was in Bridgeport it was not of Bridgeport, but was organized and set on foot largely by men from the adjoining towns, who foresaw the future growth of the borough and realized, in a measure, the prosperity that was in store for it.

The first board of directors was elected on the 3d day of February, 1807. The stockholders' meeting at which they were chosen was held at Ezra Gregory's tavern, at the corner of Main and Wall streets, which place had been the theatre of all the organizing meetings and discussions. The tavern-keeper, from all accounts, seems to have been a man of importance and popularity in the community, and doubtless he made his house a very agreeable place for the business men of the town to assemble in, either for the purpose of organizing a bank, or accomplishing any other work of public benefit and utility. The board of directors included the names of men prominent locally and in the adjoining towns. They were Isaac Bronson, Greenfield Hill; Birdsey Norton, Goshen; Samuel W. Johnson, Stratford; John S. Cannon, Lambert Lockwood, Samuel Hubbell, David Minot, Bridgeport; Jesup

Wakeman, Fairfield; Ebenezer Jesup, Saugatuck. They immediately proceeded to choose Dr. Isaac Bronson president. The choice was an extremely wise one. Dr. Bronson seems to have been a man of more than ordinary endowments. Born in 1760, he early began the study of medicine, and in 1779 he entered the Revolutionary army as a junior surgeon in General Washington's command. At the close of the war he traveled extensively, pursuing his journeys as far as India, which was deemed in those days a strange and wonderful performance. He went into the banking business in Philadelphia, where, in the course of a very few years, he is said to have laid the foundation of a very substantial fortune. Later he removed the scene of his operations to New York, where he was also attended with marked success. In 1796 he bought and occupied the historic old Timothy Dwight property on Greenfield Hill, which place has been retained and occupied by his descendants as a summer home to this day. He was a man of rare force and energy and remarkable foresight. His financial opinions were sought and highly regarded by Alexander Hamilton and other noted financiers of the time, and there is reason to believe that his influence was potent in bringing about the establishment of our present independent treasury system, which succeeded the break-down of the old United States Bank.

Mr. Bronson's presidency extended over a period of twenty-five years, with but one interruption, when for a period of four years the position was filled by John S. Cannon. His large acquaintance, his energy, industry and ability served the young bank in exceeding good stead. He was enabled to place its money outside Bridgeport to good advantage, and the bank seems to have trusted him to do so with entire confidence. He carried the bank successfully through the shaky times of the War of 1812. At that time his influence caused to be returned to the stockholders \$100,000, thereby reducing the original capitalization by one-half. It was his principle that a bank needed no capital except to inspire confidence, and this reduction of the stock seems to have been in the line of his precept.

Mr. George Hayt was the first cashier. He served originally at an annual salary of \$700, and the privilege of the banking house for the use of his family. Subsequently this was increased to \$1,000, with the stipulation that he should hire any necessary assistance out of this amount.

In 1832 Ebenezer Jesup was elected president, and Charles S. Hill cashier. These two, with some other officers of the bank, seem to have become involved in speculation, and the bank suffered along with them. A new board of officers was promptly elected to succeed the group of unfortunate speculators. While, during Mr. Jesup's administration, the capital of the bank had been augmented by a subscription of \$10,000 from the Connecticut school fund, an inventory disclosed the fact that its assets, all told, amounted to but \$110,000, instead of \$130,000, at which figure the capital stood. Thereupon, by a vote of the directors, the capital was reduced to \$110,000, to correspond with the amount of assets actually owned by the bank. In 1838 the legislature authorized the subscription of new stock amounting to \$100,000. In 1864 various societies subscribed \$5,850 to the stock, which brought it up to where it stands to-day, viz.: \$215,850, divided into shares of \$50 each. In 1865 the bank was changed to a national bank, but no alteration was made in its capital stock.

In 1872 Mr. Frank N. Benham was chosen cashier, and in 1892 Mr. Thomas B. De Forest, who had served as director since 1875, was chosen president. These two are in office to-day, and under their care and guidance, assisted and advised by a board of directors, composed of John M. Wheeler, E. T. Bartram, William B. Hincks, E. N. Sperry, De Ver H. Warner, George E. Somers and Samuel A. Burns, the bank has prospered and flourished.

The buildings of the Bridgeport Bank have been few in number. Its first home was reared in 1807, on or near the site it now occupies. This was used until 1857, when it was remodelled and recast. In its new guise it stood and did service until 1885, when it was torn down, and the United Bank building was reared in its place. This was built in company with the City Savings Bank, and the two institutions have occupied it jointly since the date of its erection. The building is well suited for banking purposes, both in point of construction and location, and the quarters of the old bank are comfortable and commodious.

The dividends paid by this bank have been large and regular. For the past thirty years the rate has averaged ten per cent., and even in the recent years of financial distress, it has maintained its record of making this annual return to its stockholders. Its stock ranges from one hundred and ninety to two hundred. There is little of it on the market, and sales are infrequent. The last statement, made under the call of the Comptroller of the Currency on October 6, 1896, shows the capital stock to be \$215,850; assets, \$973,527.78; loans and discounts, \$600,534.14; surplus, \$112,000; undivided profits, \$60,717.53; deposits, \$422,956.01.

Next to the Bridgeport Bank in point of age comes the CONNECTICUT NATIONAL BANK, which was established in 1832. Like the Bridgeport, this too was organized as a state institution. Although coming not so many years behind its predecessor, it found itself surrounded at birth by vastly different conditions from those surrounding the pioneer institution at its foundation. From a mere hamlet Bridgeport had grown into a thriving town. Geographically, it had expanded and increased until it stretched far beyond the confines of the little borough of 1806. Business had increased; trade had extended; commerce had been multiplied, and manufacturing begun. The Connecticut Bank came upon the scene at a time of unwonted business activity. Land speculation was rampant. Everything was enthusiasm. The town was in the midst of a boom. It was during this period that, for the only time in its history, the Bridgeport Bank was experiencing adversity. Its president and cashier, as has been previously stated, had become involved in the wild land speculation of the time, and the bank was somewhat under a cloud in consequence. Its stock had fallen to forty cents on the dollar, and public confidence in its soundness was shaken.

So the time for starting a new bank was most auspicious. Not content with Bridgeport as a field for operation, a branch was opened in Fairfield. This branch subsequently developed into the Southport National Bank, and is in existence to-day and prospering. The capitalization of the Connecticut Bank, originally fixed at \$300,000, has been changed and varied by the law permitting trustees and ecclesiastical societies to turn in their funds to a bank as part of its capital stock, and to withdraw the same at will. By this means the capital of a bank might be expanded or contracted from day to day. While the writer knows of no evil resulting from this practice, it is readily supposable that it might have operated injuriously in certain instances, and its repeal is concededly a wise piece of legislation. By this means, the capital stock of the bank now stands at \$332,100, having been placed at a figure as odd as that of the Bridgeport, and by the same process.

The first president of this bank was Ezekiel Hubbell. The first cashier was Charles Foote. Successively in the presidential chair have been Daniel Thatcher, P. C. Calhoun (subsequently president of the Fourth National Bank in New York city), Hervey Higby, Daniel H. Sterling (Bridgeport's vigorous and efficient war mayor), and Samuel W. Baldwin, the present incumbent, who was chosen to office in 1876, and has continued at the head of the bank's affairs for now a score of years.

The fact is a remarkable one, that during the first sixty-two years of its existence, this bank had but three cashiers—Charles Foote, J. T. Shelton, and Henry B. Drew. Mr. Shelton resigned in 1867, to accept the treasurership of the New York and New Haven Railroad. In 1893, Mr. Hamilton S. Shelton, a son of J. T. Shelton, was made cashier. He entered upon his duties at an early age, and bids fair to continue the record established by his predecessors of serving his institution long and faithfully.

The Board of Directors to-day consists of William D. Bishop, S. C. Trubee, Samuel W. Baldwin, W. R. Higby, Marshall E. Morris, Henry A. Bishop, Thomas L. Watson, Morris B. Beardsley and Samuel H. Wheeler.

The Connecticut Bank originally established itself in rooms at the corner of Wall and Water streets—then the business centre of town. In 1834-5, it purchased a lot at the corner of Wall and Main streets and reared its building thereon. In 1886 the old structure was torn down and the present building of pressed brick and granite was erected. The building is ornamental in design, and well fitted for the purpose for which it is used. The quarters of the bank are convenient and tasteful. The part of the building not needed for banking purposes is used for offices and stores.

From its long-established career of prosperity, wise management and enterprise, the Connecticut Bank is to-day reaping a substantial return. Its stock is sold in small blocks at 160 and higher. The average dividends are eight per cent. Total dividends have been paid amounting in the aggregate to more than one million dollars. The statement, issued October 6, 1896, shows the following condition of the bank's affairs: Capital, \$332,100.00; total assets, \$1,279,613.75; loans and discounts, \$819,085.33; surplus, \$100,000.00; undivided profits, \$60,156.44; deposits, \$659,714.48.

The next banking enterprise in Bridgeport, the PEQUONNOCK NATIONAL BANK, was organized in 1851. It was established to meet the needs of the growing community. At this time Bridgeport had been chartered as a city for fifteen years, and had a population of no less than eight thousand. The bank came into existence as a state institution. It was capitalized at \$200,000. This has never been the subject of change, and it remains at that figure to-day.

The first president was the well-known Phineas T. Barnum. Probably no name in America was more widely known than Mr. Barnum's, and his connection with the young bank served to advertise it effectively. The first cashier was William R. Higby, who managed the affairs of the bank until 1868, when he resigned, and his place was taken by Mr. I. B. Prindle, who occupies it at the present time. Other well known presidents have been Clapp Spooner, C. B. Hubbell, C. B. Hotchkiss, Monson Hawley, and David Trubee, the present incumbent, who had served as director since 1865, and was chosen president in 1885.

The quarters of the bank were originally in Bailey's Block, on lower State street. In 1853 its present building, at the corner of Main and State streets, was erected, and has served the purposes of the bank since that time.

In 1865, under the operation of the law in regard to such changes, the Pequonnock became a National Bank. It is at present managed by the following board of directors: Dr. I. De Ver Warner, David Trubee, W. A. Grippin, I. B. Prindle, Joel Farist, I. W. Birdsey, Ebenezer Burr, P. W. Wren, Clinton B. Seeley, J. E. Foster, Austin B. Fletcher. Its average dividend has been six per cent. of late years. The market for its stock rules at 150 and over. That the bank is prosperous, the appended summary of its last statement will abundantly attest. It was issued in response to a call of October 6, 1896. It shows capital, \$200,000; total assets, \$899,427.59; loans and discounts, \$500,389.15; surplus, \$100,000; undivided profits, \$14,996.71; deposits, \$511,105.51.

The foundation of the CITY NATIONAL BANK followed closely upon that of the Pequonnock. It was organized in 1854. At first it was a state institution. Later, in 1865, it changed into a national bank. Its capitalization was originally fixed at \$250,000, and it has remained the same throughout its existence. Its first place of business was on Bank street, opposite the old post-office. Later it went to the corner of Wall and Water streets, where it remained until it removed to its present building in 1861.

Adam P. Houston was its first president. He was succeeded by S. F. Hurd, Ira Sherman, Sherwood Sterling, George B. Waller and Daniel N. Morgan, who, in 1893, resigned to accept the office of Treasurer of the United States, which lofty position he is filling to-day with marked ability and conspicuous energy. Mr. Morgan's career has been one of unusual success, achieved solely by inborn genius coupled with painstaking and persevering effort. He has twice been mayor of Bridgeport, has represented the Fourteenth district in the State Senate, and has been honored with various other political distinctions. He is president of the Bridgeport Hospital, and occupies a similar position in other local institutions, over all of which he presides with dignity and wisdom. His connection with any enterprise is a guarantee to his fellow-townsmen of sound financial conduct, skill and discretion in the administration of its affairs. When President Cleveland was seeking a treasurer for the nation, he quickly discerned in Mr. Morgan just the qualities needed to fit him for the successful management of so important an office. Mr. Morgan brought to the position his large experience in business matters and in affairs financial, and has, during his incumbency in office, been one of the strong, staunch, clear-headed, reliable men of the administration.

In 1893 Mr. Edwin G. Sanford was chosen president, to fill the office left vacant by Mr. Morgan's elevation, and he holds the position to-day. Mr. Frederick J. Banks is cashier.

That the City Bank is prosperous is amply attested by the fact that its stock is a steady paying eight per cent. one, and that its market quotation is 155, and higher. The policy of this bank has always been in the line of accumulating an ample surplus fund, and for this reason the dividends declared have seldom been commensurate with what has been earned by the bank during the period covered by the dividend. The board of directors is composed of Frank Miller, Edwin G. Sanford, D. B. Booth, George Mallory, L. S. Catlin, E. G. Burnham, F. J. Banks, G. C. Edwards, and J. H. Mathews. A summary of the statement of October 6, 1896, is appended. Capital, \$250,000.00; total assets, \$1,060,145.06; loans and discounts, \$713,183.46; surplus, \$150,000.00; undivided profits, \$70,587.98; deposits, \$496,077.38.

The FIRST NATIONAL BANK was established in 1864. It is the only one of the local banks organized under the national banking act. Its first home was at the corner of Main and State streets. In 1870, it moved into the ground-floor portion of the building erected in that year by the People's Savings Bank, and has remained there since. At the time of its establishment E. S. Hawley was president, and William E. Seeley, cashier. These two continued to hold office until 1893, when Mr. Hawley resigned, and Mr. Seeley succeeded him as president. This office he holds at the time of the present writing. Mr. O. H. Brothwell took Mr. Seeley's place as cashier, and continues to occupy the position to-day.

This bank, though younger than all the rest of its competitors, is one of the strong ones of the city. Its policy has been rather on the line of building for the future on substantial foundations than of declaring large dividends. Its management has been wise and prudent, yet vigorous. It has prospered in the past, and bids fair to prosper

in the future. Its average rate of dividend has been eight per cent., and its stock, when sold, brings as high as \$180. The board of directors to-day is as follows: Horace L. Fairchild, William E. Seeley, Edward Sterling, Caleb A. Granniss, Alexander Hawley, Edward W. Marsh, Enoch P. Hincks, Charles G. Sanford, Charles B. Read. The principal items of its last statement (October 6, 1896) are as follows: Capital, \$210,000.00; total assets, \$1,207,144.06; loans and discounts, \$463,332.51; surplus, \$105,000.00; undivided profits, \$70,587.98; deposits, \$496,077.38.

Connecticut is liberally supplied with savings banks. When one considers that in this state a savings bank is in effect a co-operative institution; that it has no capital stock; that it offers to its organizers and founders no return for their money over and above what it distributes equally among its depositors in the way of dividends; and that the time and wisdom given to its management by its trustees is given from pure disinterestedness, with no thought or idea of reaping a return for themselves;—when one considers all this, we say, he cannot but regard it as one of the hopeful signs of the times that interest in the welfare of the people is so great as to lead to the foundation of so many of these useful institutions.

The state asserts a direct guidance and control over the savings banks. It limits and prescribes the style, quality, nature, even locality of their investments. It establishes various rules and regulations for their conduct, and maintains a state board of Bank Commissioners to see that they are operated according to law, and to make an annual report embodying the results of their observations during the year, and containing suggestions for the guidance of the banks in the future.

Bridgeport has four of these banks in active operation. The oldest, the Bridgeport Savings Bank, is a venerable landmark among similar institutions in this part of the state. Founded in 1842, there were but nine savings banks in the state previously chartered, and none in Fairfield county. Of the original incorporators named in the charter not one survives to-day. They have passed away, but the good they accomplished lives after them, and the bank they established is as noble and enduring a monument as can be reared to their memory.

Bridgeport at that time was newly become a city. Its population was small, there being somewhat less than five thousand people, all told, within its confines. Business was not brisk during the first years of the new bank's existence. Its first quarters were in the store of Sherwood and George Sterling on Water street. Then it moved to a room at the corner of Wall and Water streets. In 1845, it went further up Wall street, to where the City National Bank's building now stands. In 1850, the lot which it now occupies was purchased. Here, at the corner of Main and State streets, it built its first permanent home, and occupied it until 1878, when it erected its present handsome structure on the same site.

THE BRIDGEPORT SAVINGS BANK has had for its officers men of humanity, intelligence and integrity. Its history is a history of a half century of successful achievement, during which it has been a source of unmixed blessing to the widow, the orphan and the wage-earner. This success has been due wholly to the efficiency and zeal of its officers. The first to fill the presidential chair was Sherwood Sterling. He was succeeded in turn by Smith Tweedy, Daniel O. Wheeler, Lemuel Coleman, Hervey Higby, E. S. Hawley and Samuel C. Trubee, who occupies the position to-day. The treasurer at present is Alexander Hawley. He was chosen in 1882, and under his administration the bank has continued its prosperity of the past. Since its organization it has not failed to pay regular dividends. The rate has varied from 7 to 4½ per cent. All told, the bank has distributed in dividends more than \$5,000,000.00. The bulk of this amount went to small depositors, as a return for

their industry and saving habits. For the last few years the rate of interest has been $4\frac{1}{2}$ per cent.

The statement of the bank's condition issued October 1, 1896, shows its total assets to be \$4,437,449.10; loans on real estate, \$2,107,166.75; bonds, \$1,791,500.00; deposits, \$4,192,584.37; surplus, \$158,198.37; number of depositors, 10,476.

Next, in order of foundation, among the savings banks, comes the City. This was established in 1859. Originally located in small rooms on Wall street, it moved soon into the building of the City National and remained there from 1861 to 1885, when it changed its home again, going this time into its portion of the new United Bank Building, which it had joined with the Bridgeport National Bank in erecting.

The success of this bank has been uniform and constant. In 1877 confidence in its soundness was somewhat shaken by false reports and baseless rumors circulated about the city, and a run on the bank took place, in which over \$150,000 was withdrawn in a single day. On this occasion it was materially aided by the friendly attitude and spirit of the other banks, and it was largely through the generous position they took that confidence was restored and harm averted.

The first president of the City Savings Bank was Hanford Lyon, while Stiles M. Middlebrook was the first treasurer. The presidency to-day is vested in Mr. David F. Hollister, while Mr. William B. Hincks holds the treasurership. The officers of the bank have not changed frequently. There have been four presidents and two treasurers during its thirty-seven years of existence. The average rate of dividends for many years past has been four per cent. A statement of the bank's condition, issued October 1, 1896, shows total assets (par value), \$3,720,015.45; loans on real estate, \$1,731,873.75; bonds, \$1,484,000; depositors, 8,268; due depositors, \$3,526,835.32; surplus, \$108,000.

In 1860 the PEOPLE'S SAVINGS BANK was organized, with Ira Sherman as president and Stephen Hawley as treasurer. In 1870 it erected a building at the corner of Main and Bank streets, which it now occupies along with the First National Bank. George B. Waller and William E. Seeley have succeeded Mr. Sherman in the presidency. The latter holds the position to-day. The treasurer is Mr. Edward W. Marsh.

This bank has enjoyed the same career of quiet prosperity as the other local savings banks. It has been wisely guided and directed. Its officers have been men of keen business judgment and sagacity, as well as broad philanthropy and Christianity. To-day the institution is abundantly prosperous, and bids fair so to continue. It has regularly paid a 4 per cent. dividend. Its resources consist of \$2,971,025.16. Its loans on real estate amount to \$1,594,652.00. It has bonds amounting in value to \$1,161,368.00. It has deposits of \$2,800,634.65, and maintains a surplus of \$106,000.00.

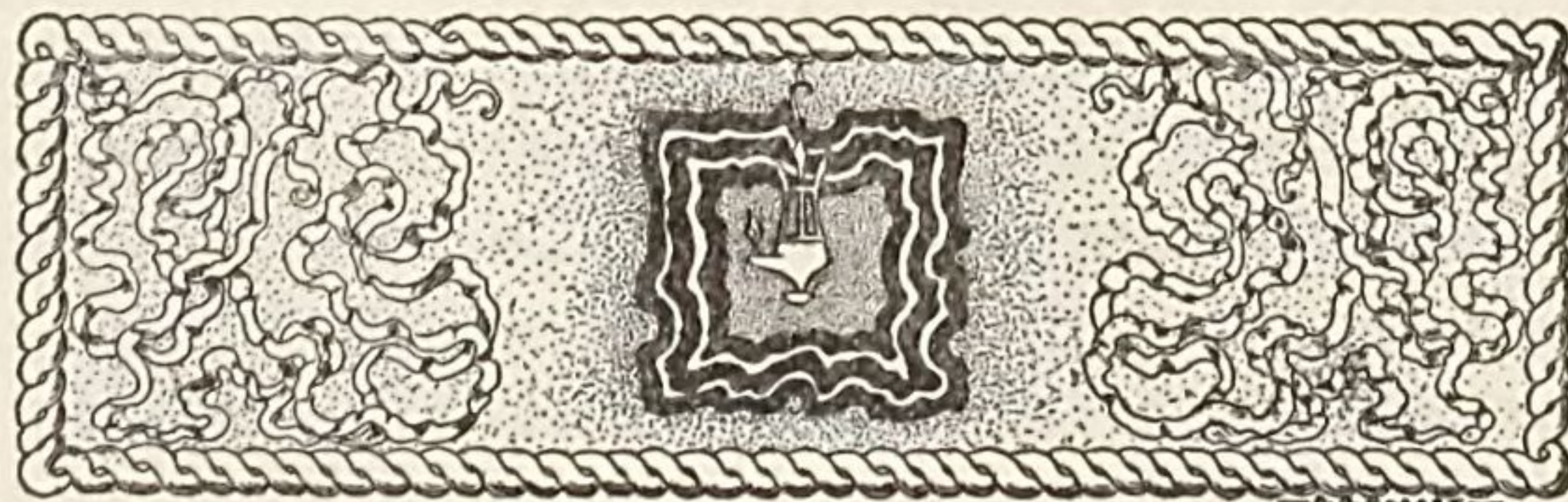
The MECHANICS' AND FARMERS' SAVINGS BANK began its existence in 1873. It was originally located in East Bridgeport. It has, for the past eleven years, occupied, jointly with the City National Bank, the banking-floor of the latter's building on Wall street. Like its brother institutions, this bank has been attended with a marked degree of success. This has been, in no small part, due to the skill and ability of Hon. Lyman S. Catlin, who has been its treasurer from its organization. Starting in the field when money rates were lower and a surplus more difficult to accumulate, this bank has gone on steadily, paying a dividend of 4 per cent. and increasing its assets and prestige yearly. To-day it has four thousand eight hundred and eighty-six depositors, with deposits amounting to \$1,589,543.70. Its surplus fund is \$32,948.13. Its total assets amount to \$1,652,621.76 at a par valuation. It

owns bonds valued at \$672,581.23. It has loans on real estate aggregating \$762,173.00.

Bridgeport has four firms of private bankers. They are James Staples & Co., T. L. Watson & Co., Marsh, Merwin & Lemmon, and Burr & Knapp. All of them receive money on deposit and allow interest on balances. With the exception of T. L. Watson & Co., all engage in real estate transactions, fire insurance, and kindred branches of business. T. L. Watson & Co.'s business is more in the line of brokerage. General Watson, the head of the firm, is also at the head of the important New York house of Watson & Gibson, and is vice-president of the Consolidated Exchange in New York. His local house is connected with New York by private wire, and the firm's place of business at the corner of Main and John streets is the headquarters for the financial news locally and from abroad. The office in Bridgeport is under the management of Gen. L. N. VanKeuren, who is Gen. Watson's partner in the business.

All of the men engaged in private banking in Bridgeport are men of high standing in the community, and are men of wealth and business ability. Under their guidance the banks they have established have done exceedingly well. Money deposited with them has been deemed as secure as money invested in any other manner. The depositors feel certain that their money is not used to speculate wildly with, but is put out to interest in legitimate channels, and they are confident that whenever they may want it, they will find these firms ready to pay them when their check is presented.

We may pause for a moment after what we have written, and take a brief retrospect of what has been here set down in the way of a history of the several banks. It was stated at the commencement of this article that the general plan in view would be to show that the prosperity of the banks and the community went hand in hand. Our limitations have prevented our dealing with the growth and increase of the city of Bridgeport. But it is presented elsewhere in this work. A moment's consideration of the facts disclosed in the two articles cannot fail to show that the banks and the city have both lived under the beneficent smile of a favoring Providence. Peculiarly so has it been with the banks. None have failed; none withheld so much as a penny from their customers. Their record in the past is a proud one; their future is most auspicious and promising.



CHAPTER XC.

MANUFACTURING INTERESTS OF NORWALK, STAMFORD AND WESTPORT.



THE town of Norwalk, situated on Long Island Sound between Bridgeport and Stamford, takes its place among the first settlements of Connecticut, and peopled as it is with thrifty and energetic patriots, it has continued to grow and now stands among the leading manufacturing cities of the state. On the 26th day of October, 1640, Rodger Ludlow purchased of the Indians a tract of land between the Saugatuck and Norwalk rivers, and on the following April a subsequent purchase was made by Captain Daniel Patrick of the central portion upon which the town has since been built. Although the purchase from the Indians was made 1640, the permanent settlement of the town was not effected until 1651. As early as February of that year about thirty of the sturdy pioneers were partially settled in their wilderness home. The first white settlers reared for themselves log houses and a block-house or fort for common defence.

There was no lack of patriotism on the part of the first settlers, as the ancient records show that during the French and Indian War, upon receiving information that a battalion of regulars were to be quartered there, the people in town meeting voted to tax themselves for their support. During the Revolutionary War and the War of 1812, the patriotic people of Norwalk responded to the call, and the same spirit inherited from their forefathers filled the hearts of their sons during the War of the Rebellion, when the town sent forth its full quota.

In 1779 General Tryon with two thousand five hundred British soldiers landed on the shores of Norwalk and burned the town. There were at that time less than four hundred patriot troops to oppose the advance of the enemy. The patriots were warned in time to remove the women, children and most of their household effects out of reach of the invaders. The records show that all told the British and Tories destroyed eighty dwellings, two churches, eighty-seven barns, seventeen shops and four mills besides other property. The town had been settled about one hundred and twenty-five years at the time of the destruction. In 1792 the General Assembly voted to the sufferers of the Tryon raid half a million acres of land owned by the state and lying south of Lake Erie. The valuation allotted to Norwalk as the greatest sufferers was over £26,000.

The most disastrous railroad accident which ever occurred in this part of the country took place at the South Norwalk draw-bridge on the morning of May 5, 1853. An express train for Boston from New York on the New York and New Haven Railroad ran into an open draw. The engine, tender, baggage car, smoking car and two passenger coaches, together with about half of the next car, plunged

some twenty feet into the river below. Nearly all the inmates of the forward car were drowned. The number of lives lost was fifty-four.

Norwalk became a city in 1870, it then having a population of about ten thousand. Scores of wide-awake business men had taken up their abode within the town, and the work of progress both in mercantile and manufacturing interests was pushed forward with zeal and vigor. There are two special industries that have been carried on here for years which have made the town famous, these being the manufacture of hats and cultivation of oysters. There are twenty-five firms engaged in the former and fifteen in the latter.

The oyster industry forms quite an important factor in the business interests of the town, as will be seen by the fact that eleven thousand seven hundred and ninety-seven acres of ground are under cultivation, and twenty-two steamers are employed in the industry. These figures do not, however, include the area of the natural beds and the large fleet of both steam and sailing vessels operating on the latter and engaged in the carrying trade. As far back as 1821 the town took steps to protect the oysters within her jurisdiction by a vote in town meeting prohibiting all persons except the proper inhabitants gathering oysters in any form under penalty of arrest and fine. Among the leading oyster-bed owners are W. H. Hoyt & Sons, Craw & L'Hommedieu, and W. T. Stevens, these firms controlling nearly six thousand acres of ground, which is being operated successfully. It is computed that at least two millions of dollars' worth of bivalves are planted in the waters of Norwalk, three-fourths of which are owned by citizens of South and East Norwalk.

WILLIAM H. HOYT & SON rank among the oldest and leading oyster firms in Norwalk and vicinity. They own and operate over fifteen hundred acres of oyster ground and carry on an extensive business as planters, exporters and wholesale dealers. Their office and storehouse are located on Water street, South Norwalk, adjacent to the water front, and they are well known far and near to the shell-fish trade. According to the report of the Shell Fish Commissioners, the amount of material which this firm deposited on their beds for the set of 1896 amounted to one hundred and eighty-three thousand five hundred bushels. Of this amount seventy-five thousand bushels were shells and the remainder gravel and sand.

In addition to those mentioned above are a number of wholesale dealers and shippers, two of which are incorporated. The H. ROWLAND COMPANY, planters and dealers, were incorporated in 1896, with a capital of \$5,000. Haviland Rowland is president and treasurer, and William F. Morgan, secretary. They are located at South Norwalk.

THE NORWALK OYSTER CO. is capitalized at \$2,000, with George H. Shaffer as manager.

The next and, in fact, the largest industry is the hat manufacturing trade with its auxiliaries. South Norwalk is the centre of this extensive and lucrative interest, employing a vast amount of capital and giving employment to nearly three thousand operatives of both sexes. For many years the town has been noted throughout the country as a hatting town. The hats produced here find a ready market in every state in the Union, Mexico, the states of South America and in Europe, because of their superior quality. There are some twenty hat manufactories, including two shops engaged in the straw hat industry, three hat-forming works, three hatters' fur manufacturers, one hatters' tool manufacturer, and one hat machinery manufactory.

THE CROFUT & KNAPP COMPANY are the leaders in this industry in the town. They occupy two large factories and employ several hundred operatives during the busy season. The firm was incorporated in May, 1893, with a capital of \$100,000.

The officers are: President, James H. Knapp; vice-president, Philip N. Knapp; treasurer, William W. Lester; secretary, James K. Crofut. These gentlemen are all practical business men and thoroughly familiar with the various details of their trade, which has enabled them to compete with their closest rivals.

THE ADAMS BROTHERS MANUFACTURING CO., located on Railroad Place, corner Clay street, South Norwalk, are also manufacturers of hats, and give employment to about one hundred hands. They were incorporated in June, 1890, with a capital of \$45,000. Edwin Adams is president, and F. Victor Cole, secretary and treasurer. They are an important factor to the town.

THE RAYMOND & COMSTOCK CO., located on Day street, South Norwalk, manufacturers of hats, were incorporated July, 1894, with a capital of \$10,000. The present officers are: President, Samuel Raymond; vice-president, David H. Miller, Jr.; secretary and treasurer, Frank Comstock. The firm are doing an excellent business and give employment to a large number of hands.

THE SOUTH NORWALK HAT CO., located on Day street, South Norwalk, was organized under the corporation laws of the state with a capital of \$20,000. The officers are: Edwin H. Bush, president; John J. Murphy, vice-president and secretary; David Bernard, treasurer.

THE VOLK HAT CO., located corner Raymond and Day streets, was incorporated in 1883, with a capital of \$10,000. The present officers are: President, Christian Schwartz (who is also secretary of the Old Well Cigar Company); secretary and treasurer, Joseph A. Volk.

THE HAT FORMING CO., foot of Franklin street, South Norwalk, engaged in forming hat bodies, is an old industry, having passed through many years of prosperity. The company was incorporated in 1874, with a capital of \$35,000. The present officers are: President, Alden Solmans; treasurer, Edwin Adams; secretary and superintendent, Seymour C. Palmer.

The remaining manufacturers in this industry in South Norwalk are: Otto Barthol, Mechanics street; William B. Brown, Water street; Hoyt & Wolthawson, Maple avenue; William H. Hubbell, Woodward avenue; E. M. Palmer & Co., foot Franklin street; Theile & Holmes, Union street; and J. C. Wilson & Co., South Main street. In Norwalk there are: James S. Lyon, on North avenue; and Lewis L. Sherwood, Wall street. All these give employment to more or less operatives, and add greatly to the thrift and prosperity of the place.

The straw-hat industry is represented by ARTHUR C. WHEELER, whose factory is located on Butler street, Norwalk. Mr. Wheeler is also at the head of the municipal government, holding the office of mayor of the city. His political ambition, however, does not interfere with his business, which he has been and is carrying on with success. In the busy season he gives employment to a large force of both sexes.

DENNIS & BLANCHARD also carry on a similar business on Water street, South Norwalk.

The cigar-manufacturing industry is also quite a factor to the business interests of South Norwalk. There are several small concerns engaged in the manufacture. Three of the largest, however, are stock corporations.

THE OLD WELL CIGAR CO. is the oldest concern, and their Havana and domestic cigars have a wide reputation. They import large quantities of leaf tobacco, and employ about seventy-five hands. The company was established in 1868, and incorporated in 1880, with a capital of \$10,000. They occupy a large factory on Washington street. The officers are: President, Reed Haviland; secretary and treasurer, Christian Schwartz.

THE HOYT & OLMSTEAD CIGAR CO., located on South Main street, are large manufacturers of Havana and domestic cigars, and employ about fifty hands. They were incorporated in 1885, with a capital of \$10,000. The officers are: G. M. Olmstead, president; Theron C. Hoyt, secretary and treasurer.

GRAHAM-ERNST CIGAR CO., doing business on Washington street, is a younger firm, but is fast advancing to the front. They were incorporated January 1, 1895, with a capital of \$24,000. George C. Ernst is the president, and Arthur A. Graham is secretary and treasurer.

THE NORWALK LOCK CO. is one of the early industries of South Norwalk, and the plant has for a great many years been a familiar object to travelers on the New York and New Haven railroad, standing, as it does, within close proximity to the line. The buildings are of brick, the main structure being three stories high, and cover several acres of land. The principal industry is locks and builders' hardware, of which they produce an almost endless variety. The company was incorporated in 1856, with a capital of \$230,000. Edward Beard is president and treasurer, and David E. Disbrow, secretary.

THE NORWALK IRON WORKS, which is a sort of an outgrowth of the above, is one of the staunchest concerns in western Connecticut. The plant, which covers several acres of land adjoining that of the Lock Company, contains large brick structures, and a large number of men find employment therein. The company manufacture steam engines, steam pumps and general machinery, etc. It was established in 1865, and incorporated in 1880 with a capital of \$52,725. They have a surplus of \$169,216.89. The officers are: President, Edward Beard; and treasurer, Ebenezer Hill. The success of both the South Norwalk Lock Company and the Norwalk Iron Works is largely due to the business ability and energy of Mr. Edward Beard, president of both corporations.

THE LOCKWOOD MANUFACTURING CO., located on Day street, South Norwalk, is another of the town's wide-awake concerns. They manufacture a great variety of locks and builders' hardware. It is a stock corporation with a capital of \$200,000, and was incorporated May 19, 1888.

THE RICHARDSON & MORGAN CO. occupy a spacious plant on Water street, South Norwalk. Their chief industry is the manufacture of ranges, boilers and furnaces. Their products have an established reputation, and a large number of hands find employment there. The firm was incorporated in March, 1895, with a capital of \$100,000. The officers are: Jeremiah J. Richardson, president; and Arthur E. Williamson, secretary and treasurer.

The corset industry is represented by ROTH & GOLDSMITH, who are the only manufacturers in this line in South Norwalk. They occupy a five-story modern brick building on Ann street, and give employment to about five hundred hands during the busy season. Although they are in the field of strong competition, they are able to meet it, and the demand for their product enables them to keep their factory in full operation.

THE NORWALK SILK CO. is a young corporation for Norwalk, having been organized in January, 1896. It is located on Water street, and has a capital of \$50,000. Their product is dress silks. Michael Steinhardt is the president and treasurer.

THE J. T. PROWITT CO., dealers in hardware, paints, oils, paper-hangings, bicycles, etc., is one of the largest mercantile houses in South Norwalk. They occupy two stores, one on Washington street, South Norwalk, and the other on Main street, Norwalk. The firm was incorporated in 1893 with a capital of \$20,000. They are a successful and enterprising business house, and stand well in the community. The

officers are: President, Henry T. Prowitt; vice-president, John M. Beatty; secretary and treasurer, John T. Prowitt.

AUSTIN & CRAW, manufacturers of toys, games, novelties, tea and coffee filters, etc., occupy a small factory on Water street, South Norwalk.

The manufacture of gas stoves and water heaters is carried on by FREDERICK M. WHITMAN, on Haviland street, South Norwalk.

THE DUNCAN IRON RAILING WORKS, located on Water street, South Norwalk, make a specialty of wrought and cast iron in fencing, iron gates, doors, shutters and gratings; also iron stairs for building purposes. Their factory is under the management of William H. Hoyt.

The establishment of GEORGE BUCKMASTER, on Water street, South Norwalk, has a wide reputation in neighboring towns and cities, as well as at home. The special features of this plant are heavy ironwork for buildings, such as columns, beams, girders, trusses, roofs, fire-escapes, and stable fixtures of every description, sidewalk lights, etc.

THE NORWALK POTTERY CO. have a large plant which they operate on Smith street, Norwalk. This industry has been carried on here for a great many years, although the present company was not organized and incorporated until 1887. They are capitalized at \$10,000. Their product consists chiefly of stone and yellow-ware, flower-pots, and that line of goods. The officers are: President, Joseph C. Randle; secretary and treasurer, Edwin O. Keeler.

HUTCHINSON, PIERCE & CO., manufacturers of men's shirts and underwear, ladies' and boys' shirt-waists, occupy the most prominent place in the manufacturing industries of Norwalk. Their spacious factory buildings cover several acres of ground on Merwin street, and they furnish employment to over five hundred operatives of both sexes. They also operate a large plant in Bridgeport, Conn., where a like number of hands are employed. They import large quantities of foreign fabrics used in the manufacture of their garments. Their trade is among the leading dry-goods houses in the country. The firm is a stock corporation with a capital of \$600,000. They were incorporated in 1895. The officers are: President and treasurer, Henry B. Pierce; vice-president, Ira Cole; secretary, Morris T. Hutchinson; general manager, George S. Brown.

THE JONES MANUFACTURING CO. have a modern plant on Hoyt street, Norwalk, where they are engaged in the manufacture of typewriter supplies. They were incorporated in 1896 with a capital of \$10,000. The officers are: President, Frank T. Jones; secretary and treasurer, E. Hubbell Hotchkiss.

THE HOLMES, KEELER & SELLECK CO. are the leading commercial house in Norwalk. They were incorporated in April, 1891, with a capital of \$100,000. They are located on Wall street, and carry on the wholesale grocery, flour, grain, feed and hay business. The officers are: President, George M. Holmes; secretary and treasurer, Floyd T. Ruscoe.

THE HILL & HUBBELL LUMBER CO. operate an extensive plant on Water street, Norwalk, and command a large wholesale and retail trade. The company was incorporated in November, 1894, with a capital of \$25,000. The officers are: President, Horace L. Hubbell; Arthur B. Hill, treasurer; James F. Hall, vice-president and secretary.

THE JONES & HOTCHKISS CO., Wall street, Norwalk, carry on a large plumbing, heating, steam and gas-fitting business. They were incorporated in January, 1896, with a capital of \$7,500. The officers are: President, Frank I. Jones; vice-president, E. Hubbell Hotchkiss; secretary and treasurer, Alfred W. Betts.

THE NORWALK FIRE INSURANCE CO., whose general office is located at 45 Wall street, Norwalk, is an old-established and solid financial institution, having the implicit confidence of its policy-holders. It was incorporated in 1860, and since 1861 has been doing a successful business. Its capital and surplus are \$379,474.65. The success of the institution is largely due to the untiring zeal and ability of its residential head, George B. St. John. The officers are: President, A. G. McIlwaine, Jr., New York; vice-president, George B. St. John; secretary, George R. Cowles.

THE MEEKER COAL CO. was incorporated in June, 1892, with a capital of \$20,000. Silas B. Meeker is president, and A. J. Meeker treasurer. At the same plant is also conducted Meeker's Union Foundry, manufacturers of all kinds of castings and stove repairs. The business is conducted by A. J., Silas B., and Edward S. Meeker.

MISS CORNELIA F. BAIRD'S INSTITUTE for girls and young ladies is on West avenue about midway between Norwalk and South Norwalk. The school buildings consist of four large store-houses and a gymnasium adjoining. At the rear of the houses large grounds and an abundance of choice fruit in season tempt the student to enjoy outdoor life. The institution's aim is to make it a home for its pupils. A cottage on the opposite side of the street is used as a hospital in case of necessity. The school is furnished with a large and select library. Miss Baird is thorough in her manner of discipline and instruction, and the reputation of the institution gives it its full complement of pupils at the opening of each term.

THE NORWALK SAVINGS SOCIETY, incorporated in May, 1849, and located at 44 Wall street, Norwalk, is one of the solid financial institutions of the town. The management of its affairs is largely left to the financial ability of George E. Miller, its secretary and treasurer.

THE NORWALK MILLS CO., whose offices and mills occupy a large area at Winipauk, in the outskirts of Norwalk, was incorporated in 1877 with a capital of \$100,000. They are large manufacturers of woolen goods, and give employment to a large number of operatives. The mills are substantial stone and brick structures, with new and improved machinery. The officers are: President, J. C. Alden; secretary and treasurer, John A. Osborn.

THE LOUNSBURY & BISSELL CO., manufacturers of felts, were incorporated in 1838 with a capital of \$200,000. The officers are: President, Charles C. Betts; secretary and treasurer, Eugene L. Boyer.

STAMFORD.*—Stamford differed little in commercial and industrial standing at the beginning of the century from many towns in Southern New England. It was then as now one of the larger towns of the state, with a population in 1800 of 4465. Its industries were mainly agricultural, with such commerce as was naturally required for the disposition of the produce of the soil in the town, and of some of the surrounding country of which it was the natural distributive centre. For the first half of the century it had considerable shipping interests, and a greater part of the time a respectable direct West India trade. In 1833 a canal was dug from the eastern side of the harbor through low land to the centre of the village, and quite extensive warehouses were erected at the head of the canal. This proved a very beneficial factor in the commercial welfare of the place until the completion of the New York and New Haven Railroad. This event not only resulted in diverting much of the water traffic to the railroad, but crossed the canal with a bridge so low as to render

* By John E. Keeler.

it unnavigable by any sort of craft other than a lumber or coal barge. In 1868 the portion of the canal lying below the line of the railroad was widened and deepened, and with the material dug out the adjoining salt marsh was converted into upland upon which many of the important industries of the town have since been located. The upper part of the canal was then from time to time filled up. The greater portion of the water traffic is now carried on from the docks of this waterway, the remainder at the harbor proper which is formed by the emptying of Mill River into the sound.

At an early date most of the water power furnished by the streams running through the town was utilized for milling purposes, to grind the grain and saw the logs of the inhabitants. Of the grinding of grain and sawing of logs there is nothing of interest which could not be said of a hundred places similarly situated, but some of these mill sites eventually contributed to develop more specialized industries of which some account will now be given.

One of the favorably situated sources of power was a large tidal pond at what is known as the cove at the mouth of Noroton river, which latter forms the present boundary between the towns of Stamford and Darien. The latter town was until 1820 a part of Stamford. In 1791 the town granted William Fitch right to build a dam across this cove or creek, conditioned upon his building a mill within seven years and grinding the grain of the inhabitants according to the custom of other mills, and building a wharf below the dam, and also maintaining a scow in the mill-pond sufficient to carry 2000 bushels of grain for the free use of the town. With jealous regards for the fishing rights of the community, it was further provided that each summer the water should be drawn off for a stated period with notice to the inhabitants that they might at that time take shell fish.

Mr. Fitch, in association with John W. Holly, soon built two mills, and a large business was done grinding corn and wheat. To this was added the grinding of spices and dye-woods. From this time on these mills passed through a number of hands, and in 1832 were purchased by Henry J. Sanford and John C. Sanford, who devoted them to the production of dye-wood extracts, and in particular extract of logwood. Mr. Henry J. Sanford was the pioneer in the successful production of high-grade extracts for dyeing, and in a few years his product obtained the widest reputation, and his establishment became the leading one of its kind in the world, and it is said that for a long time it was the only one of importance in existence. The name Sanford on a package of extract indicated the highest standard. For a while it was unapproached. It has never been excelled. Extract of licorice was soon afterward added to the products of this establishment, and in later years became the more important product.

In 1844 the business was incorporated under the name of the Stamford Manufacturing Company, and still continues under that name. In its expanding business the company needed larger facilities, which in those days meant more water-power, and in addition to the parent-mill, acquired the lower mill upon Mill river, in the city of Stamford, and also mills in Glenville (Greenwich), Westport, New Haven, and at Rye and New Rochelle, in Westchester county, New York. The company also owned the barytes mine at Cheshire, near New Haven, and its product was ground at the mill in the latter place. In the decade between 1850 and 1860 the export trade of this company was phenomenal, and from that time on its prosperity has been continuous. With the more general use of steam power applied at the Stamford mills, the outlying water-power plants were from time to time abandoned, and production concentrated at the home plant. The large wooden mills of the company

were burned in 1855 and immediately rebuilt. Since then, from time to time, brick buildings, practically incombustible, have been substituted for the older structures. Many fortunes have had their origin in investment in the stock of this company. Until the year 1870 it was practically without a rival, and this, with the excellency of its product, combined to insure large return of profits. Since then it has not escaped the keen competition of the last twenty-five years, but has more than held its own, and quadrupled its output during that period. In addition to the most modern machinery, supplemented by the best technical skill in laboratory and factory, business methods of a high order prevailed in its management. The company own large tracts of lands in Asia Minor, where great quantities of licorice root are gathered and cured, to be shipped to the works at Stamford to be made into licorice paste. This establishment has its harbor, and for years owned many vessels used in carrying its material and product to and from New York. Its transportation is now carried on by a fleet of freight steamers, owned by a subsidiary company.

The dealings of this establishment with the public have always been of the most liberal kind. Its subscriptions to local good works have been proverbially generous, and for many years considerable quantities of its products were free to any of the neighboring inhabitants who asked for them. Labor troubles have been unknown at the Cove Mills, and the employees have ever shown the utmost loyalty to the company. Weekly payment laws caused no change in its policy; it had always paid its men when they wanted their money, by the month, week or day if they so chose, and always in cash at the office. Its presidents have been among the best known residents of the town. Henry J. Sanford was succeeded in the presidency by Rollin Sanford. Since then its presidents have been Charles H. Leeds, 1860-1870; Edward F. Leeds, 1870-1878; William Gay, 1878-1882; William T. Minor, 1882-1887; and since 1887 its present energetic head, William W. Skiddy. Any community might take pride in such an establishment, and in Stamford it is highly and properly appreciated. It gives at present employment to about 300 men.

Another early utilization of water-power took place at Roxbury, a hamlet some three or four miles north of the village of Stamford, where in 1825, William Lacon, an Englishman, established a rolling mill on Mill River. Theodore Davenport afterwards became his partner, and later this mill and another lower down upon the stream at Stillwater, became the property of Mr. Davenport and his brother John A. Davenport, of New Haven, and Jonathan D. Weeks, who carried on business under the name of the Stillwater Company, for many years, with some changes from time to time in the personnel of the firm. Wire was drawn at the upper or Roxbury Mills, and iron and steel rods and bars at Stillwater. Steam-power supplemented the water-power at the latter location. This establishment furnished work for many of the neighboring inhabitants, who were a sturdy folk, alternating their work at the mills with farm labor in "off seasons."

The road over which the coal and pig iron and scrap iron were carted from the company's dock at the head of Stamford Harbor to the mill at Stillwater, a distance of nearly three miles, was black from the deposit of dust, and its repairs from time to time with the waste or slag from the iron furnaces.

The establishment was prosperous for many years, at times exceptionally so, as during the period of the Civil War, but little was done after about 1880. To haul coal and crude iron three miles from tide water, and haul the finished product back the same distance in competition with larger concerns with greatly superior locations, was a hopeless undertaking. It was tried for a while with the same results as in many another case, and gave way before that concentration of production which is the prominent feature of the present industrial period.

Another rolling-mill was established in the second quarter of the century, by David Holly, at the most ancient mill-site on Mill river, in the centre of the city, which had, in the early years of the town, been the principal grist-mill, and later had furnished power for a carding-mill operated by Thorp Bros. After running several years as a rolling-mill, the property came into the possession of George E. Waring in 1840. Mr. Waring was an inventor of repute, having in early life perfected many improvements in agricultural implements, and later turned his attention to the manufacture of stoves, with a foundry at Long Ridge, in the northern part of the town, and later on Bedford street, in the village of Stamford, which he removed at the date last mentioned to the Mill-river site, and named his establishment the Rippowan Company. Later, Mr. Waring formed a partnership with James B. Scofield, Isaac Wardwell and Joseph D. Warren. The firm later became Joseph D. Warren & Co., and the location of the foundry was changed to its present site on Canal street, near the head of the old canal, and has from time to time been enlarged, and new buildings have been erected. In 1869, the establishment was incorporated as THE STAMFORD FOUNDRY COMPANY. Its plant covers about two acres of ground, and includes a large stove-foundry, with storehouses and warehouses. Its stoves, ranges and other cooking and heating apparatus are widely and favorably known. The business is conducted in a careful and conservative manner, and the establishment stands in the community as a model combination of enterprise and stability. The works employ about eighty men.

Another foundry located on the west side of the harbor is that of THE DAVENPORT & TREACY COMPANY, which was incorporated in 1876; the business was previously conducted by the firm of Davenport & Treacy. The senior member of this firm, Mr. John Davenport, had, in early life, been connected with the Stillwater Company, mentioned above, and afterward was a member of the firm of Davenport & Betts, manufacturers of tools and light machinery in a factory near the railroad station at Stamford. Mr. Treacy also, previous to his connection with this firm, had had large experience in various forms of iron work. The present business of the corporation was established in New York city by Mr. Davenport in 1868, and later was moved to Jersey City, where it remained until its removal to Stamford in 1887. This foundry is equipped to do general casting, but its specialty and main feature is the manufacture of piano plates and other piano hardware. The present works of the company are admirably located on a valuable and convenient water front, giving the best facilities for receiving material and shipping their product. In connection with the Stamford plant the company has finishing rooms and an office in New York city, and a branch foundry at Boston, Mass. This concern is pre-eminently a growing one. In the year 1884 less than three hundred piano plates were turned out, while in the year ending July, 1896, the output was nearly thirty thousand. They employ at present about one hundred and sixty men. The foundry building has a street frontage of four hundred and seventy-five feet, and a floor area of about three acres. This company is known in the musical trade as producing more piano plates than any other establishment in the world. Other forms of piano hardware are largely produced, and plated and finished as well as cast at this establishment.

Stamford has also had its representatives in textile industries. The mill of Samuel Wheaton, at Bangall, a small village in the upper western part of the town, was established for carding wool and dressing cloth. Later it was used for weaving woolen goods, and afterwards for weaving yarn, and, although a small industry, existed for about seventy years.

Much more extensive were the woolen mills started in 1867 by Harding, Smith

& Co., on the old village mill-site above referred to, as occupied by Waring's Rippowam Foundry. The firm subsequently took the style of W. C. Harding & Co., and carried on the manufacture of woolen cloth from the last-mentioned date until the burning of the large factory buildings June 8, 1886, one of Stamford's memorable fires. The plant was not rebuilt, and the firm went out of business. The concern did a large and flourishing business, employed at its full capacity two hundred and fifty hands, and developed in the streets adjacent quite a factory town in miniature, with its tenements, some of them belonging to the firm. This establishment was the only one in this place, with an exception to be noticed hereafter, making much use of juvenile labor. Its breaking up caused considerable disturbance in the trade of that part of the town, and has in the last ten years quite changed the character of the quarter known as West Stamford.

Somewhat related to the industries last described is that popularly known as the "Hat Shop," situated on the lower part of Pacific street, established in 1881 by H. K. White, and afterward owned by the firm of Smart, Patterson & Rice, and later and at present owned and operated by Theodore B. Smart. The venture was not successful in Mr. White's hands, but Mr. Smart soon made it a paying business and an important factor in the industrial life of the place. The hats manufactured are straw, made from the imported straw braid, which is bleached, dyed and shaped by the most improved machinery. The buildings are all of modern construction, well-lighted and pleasant to work in. The number of employees in the busy season run as high as three hundred, of whom the majority are women, and in some of the processes are such as to be suited to the labor of quite young persons. Some felt hats are also manufactured. In this manufactory, as in others of its kind, there is a dull season for a part of the year, but the busy season is very busy, and operatives from neighboring towns come in daily to their employment here. The work is attractive, and in some of its branches the requisite skill can be obtained in a comparatively short time. The designing department is one requiring special skill and aptitude. The quick adaptation of popular shapes and colors, and the creation of taking original designs is of prime importance in the successful prosecution of this business. That this establishment has met these conditions is evidenced by the wide area of its sales, which extends over the whole of the United States and Canada.

The chemical laboratory founded by B. Keith & Co. in 1865 and since continued by his sons at the Waterside on the eastern side of the harbor, is employed in the manufacture of a variety of well-known vegetable extracts, and although from the nature of its processes no large number of employees are required, the concern has a well-merited and important standing in the drug trade.

At Glenbrook, some two miles from the centre of the city, are the well-known works established by Charles H. Phillips in 1856, for the refining of camphor and wax. The establishment was afterwards incorporated and is now carried on by The C. H. Phillips Chemical Company, and manufactures in addition to the above, preparations of magnesia, cocoa and cod-liver oil, which are standard in the trade. The bleached wax here produced for many years stood at the head in its line of product in this country and Europe. The employees are considerable in number, and the business has always been characterized by a uniform and quiet prosperity. The handsome residence of the original proprietor, now deceased, adjoining the works, laid out as a large park, and still maintained, lends an attractiveness rarely enjoyed by a factory locality.

Mr. Frederick R. Gillespie, of Brooklyn, New York, doing business as Hammill & Gillespie, is proprietor of an extensive mill and warehouse at the foot of Pacific

street, on the east side of the harbor, used for grinding clays and crude minerals and chemicals. The crude materials are imported from various European countries and are brought and unloaded upon the extensive docks belonging to the establishment in immediate proximity of the works. Indeed, nearly the whole of the ground on which the plant is situated has been reclaimed from the shallow part of the harbor and a strip of adjoining salt marsh. Since the erection of the first building in 1884, there have been continuons additions of buildings and machinery. A striking feature of the establishment is the completeness of the mechanical appliances, and the manifold services rendered by machinery in performing work usually done by hand, even in much larger establishments. There is no dull season in this business, and it is only a small portion of the year that the mills are not running day and night.

The well-known material known as Lincrusta-Walton has been manufactured in Stamford since 1883. Induced by the great popularity which this article had attained abroad, a joint stock company was formed in 1882, called The Lincrusta-Walton Manufacturing Company, and a factory erected on the lower part of Canal street. The business was carried on by Mr. Frederick Beck, a large manufacturer of wall papers in New York, under a lease by the company of their plant and patents until about the year 1889, when the company assumed direct control of the manufacture. In about a year the company was wound up, however, and Mr. Beck purchased the property, and has since continued the business. The changes in ownership have not resulted in any check to large production, and the material is steadily advancing in popularity and use, owing to its desirability, beauty and comparative cheapness, and the many uses to which it is put in decorative wall covering and ornamentation in other ways. The buildings are extensive, substantial and well-adapted to the work, and about fifty men are regularly employed.

Not only are piano plates made in Stamford, as above related, but pianos as well. Through the co-operation of the Stamford Board of Trade the well-known firm of Schleicher & Sons, for many years established at Mount Vernon, N. Y., in the manufacture of pianos, was led to locate in Stamford. The business was incorporated as the Schleicher & Sons Piano Company, and a commodious and well-equipped factory erected on Pacific street, a short distance south of the railroad station. The establishment has met with steady success, and its future seems to be well assured.

The manufacture of fire-brick and drain-pipe was established by Charles Anness in 1845, and later carried on by Samuel Anness at the Waterside until about the year 1870, when the business was discontinued. A like business is now conducted by Messrs. Perkins & Pitt, on Canal street, with dock front on the canal, where are landed the clays brought from the clay beds of Long Island and New Jersey. Mr. Perkins is a veteran in this line of business, and the product of the firm is recognized as standard in the trade.

In 1873 the late H. W. Collender, the well-known manufacturer of billiard tables, began the erection of a large factory at the head of South Pacific street, diagonally opposite the railroad station, and the next year saw the works in full operation. By the establishment of this industry many skilled mechanics came to Stamford from abroad, and at the same time it afforded employment to not a few joiners and cabinet-makers before resident here. The factory continued in successful operation for nearly ten years. On February 1, 1883, the first steam fire engine belonging to the Stamford Fire Department arrived in town, but it did not save the Collender factory from destruction by fire on February 14th, and the building was not rebuilt until 1885, when the manufacture of billiard tables was resumed for a short time. The consolidation

of the Collender company with other manufacturers, and the formation of the large corporation known as the Brunswick-Balke-Collender Company resulted in the discontinuance of the manufacture of billiard tables, and the factory was for some years afterwards used by the Collender Woodworking Company in the production of fine cabinet work for office-fittings and interior wood decoration. A few years ago this branch of manufacture ceased operation, and the factory is now occupied by Jonas & Naumburg in the production of hatters' furs, who conduct a thriving and growing business.

Lumber yards and planing mills are natural and necessary factors in the growth of any place where an ordinary amount of building is carried on, and as such would not seem to call for any extended description; but the establishment of this sort founded by Fox and St. John in 1853 has developed so largely beyond the scope of similar concerns, and has so widely diversified its product as to call for particular mention in this sketch. In 1867 Mr. Fox died and the firm became St. John & Hoyt, and in 1877, St. John, Hoyt & Co., through the addition of William H. Judd to the number of partners. Later, the firm became Hoyt, Getman & Judd, and is now Getman & Judd. By steady growth through these years the wholesale and retail lumber business of this concern assumed very large proportions, and the location on Broad street, in the upper part of the city, became too small for the convenient conduct of the business. A tract of seven acres lying along the canal with about 600 feet dock front was purchased, and extensive buildings for the storage and working of lumber erected, and the yard furnished with railroad spurs and sidings. In 1885 the business had grown so large that the ordinary lumber department was separated from that of manufacturing, and the latter was acquired by a corporation styled the St. John Woodworking Co., but owned entirely by the members of the lumber firm. In 1888 the capital stock was increased, and a considerable amount of it taken by the public at large. The product turned out by this company is most interesting in its variety, ranging from the common builders' wood work to the highest grade of interior cabinet finish. The company not only manufactures, but also does the work of interior finishing, and has executed many large contracts in New York city and throughout southern New England. The most approved machinery and mechanical devices are utilized in the manufacture, and between 150 and 200 men are employed. The close connection between the lumber firm and this company is mutually advantageous, and each enjoys a well-merited reputation for excellence of product extending over a wide field.

"The oldest business institution in Stamford is that concerned with the printing and publishing of the *Stamford Advocate*." Such is the claim made by the publishers of that paper, and they seem to make it good. William Henry Holly was the real pioneer of the printing business in Stamford, although a young man named Alexander Hamilton had established an office in 1829, and issued a weekly paper called the *Stamford Intelligencer* for somewhat less than a year, when he discontinued publication.

Mr. Holly began publication in 1830, with a somewhat greater financial backing, and called his paper the *Stamford Sentinel*. The printing office served the wants of the community with such little miscellaneous printing as was needed, in addition to printing the weekly paper. Mr. Holly was a man of vigorous and quick intelligence, and withal wielded a nimble pen. He possessed an unbridled tongue and a thick skin, and the castigations with which he frequently visited those who differed from him politically or otherwise remind one of the journalistic amenities occasionally quoted at present as emanating from the newspapers of the western mining

camps. He was usually in hot water, and liked it. Twice his establishment was burned out, once a mob cleaned it out, the sheriff was sometimes in possession, and more than once it was found desirable that the legal title to the plant should not be in the real proprietor. Mr. Holly conducted the paper and printing business from 1829 to 1848, with an interval of about a year in 1841-1842. In 1848 the business was sold to Edgar Hoyt and Andrew J. Smith, who issued the paper as the *Stamford Advocate*, the name it has since borne. Mr. Smith soon retired, and Mr. Hoyt ran the business until 1860, and was succeeded by W. S. Campbell. In 1867 William W. Gillespie and James J. Woolsey bought the establishment, and soon afterward the firm became W. W. Gillespie & Co., which in turn was succeeded by the present firm of Gillespie Brothers, composed of Edward T. W. Gillespie and Richard H. Gillespie, in 1883. The establishment since its foundation has been located in almost every part of the town at various times, until in 1871 it came into a building erected by the proprietors on Advocate place, where it found a permanent abiding place in what seemed then most commodious quarters. From the time of Mr. Hoyt's incumbency of the editorship down to this date, the paper published has met with steady and well-merited success, and its job office had increased in efficiency and scope in accordance with the demands of the changing times. But from 1871 the business enjoyed a far more than local repute for fine work, and an equipment adequate to any demand in printing, book-making and book-binding. The success of the business corresponded with its facilities, and from time to time additions were made to its building until there was no more ground to cover, and another location had to be sought. The business is now established in a fine new building on Atlantic street, completed in 1895 at a cost of \$75,000. In 1892 the publishers began the issue of a daily edition of their paper, which was a success from the start, and is daily growing in favor.

From time to time other newspapers have been established in Stamford, inspired by the hopes of sanguine promoters, or the exigencies of political opinions seeking an organ, and some of them have been conducted for a time with a considerable degree of ability, but none of them have possessed such mechanical equipment as to require notice as important factors in the industrial history of the place.

The present equipment of the *Advocate* is far in advance of anything usually found in cities of the size of Stamford. Its present building is one of the finest in the city, occupying a choice site on Atlantic street, with a frontage of ninety feet and a depth of eighty feet for the main building, connected with which is a rear building eighty feet by sixty feet with a space of thirty feet between, but connected by a structure 25 x 30 feet along the south side. Still further in the rear is the tank-tower, stack and boiler-room, so that on the south wall there is a continuous line of masonry two hundred and ten feet in length. In addition to the cream-colored Ohio brick, of which the front is constructed, about one million ordinary red brick were used in the construction of the building. The front building is rented for various purposes, with the exception of the south store which is used as a salesroom for the stationery department, and, in the rear, communicates with the counting-room and editorial-rooms, back of which is the large building containing the printing and book-binding plant. Here, the daily paper is printed and folded on the great Coe Duplex press at the rate of four thousand per hour, while, in the jobbing department, eleven other presses are engaged in the work of book and job printing, producing work equal to that of the best establishments of the large cities.

Bearing in mind that all this large achievement has grown from very unpretentious beginnings, and that the noteworthy progress has all been within the last

twenty years, it is easily explained how the people of Stamford are proud of their newspaper and rejoice in its prosperity

The manufacture of shoes on a considerable scale was established at Long Ridge in the northern part of the town in the fifties, and, after some changes in ownership, was in 1861 carried on by Cook & Lounsbury, and that firm continued until 1884, when, on the retirement of Mr. Cook, the present firm of Lounsbury & Soule was formed. The business had meanwhile grown greatly and seemed to demand better shipping facilities. Accordingly the plant was removed to the present factory on Broad street, in the city, and this building, since enlarged, is now the home of a thriving and increasing industry. The machinery is of an approved modern type. The line of product is confined to ladies' and children's shoes, and of fine grades, and find a ready and extensive sale. When running at full capacity, this concern employs about a hundred persons.

For about ten or twelve years, from 1875, the manufacture of fine shoes was carried on in Stamford by J. L. Tracy & Co., and afterward their factory was removed to New York.

In 1890 the manufacture of bicycles was begun in Stamford by the Eagle Bicycle Company, in a factory on Garden street, and the business and plant were afterward removed to Torrington, Conn., where the manufacture is now successfully carried on. This factory was subsequently occupied by the Blickensderfer Typewriter Company, in the manufacture of the style of typewriter invented by George C. Blickensderfer. The concern is now in active operation, but with orders largely exceeding its capacity. Land has recently been purchased by the company on Atlantic street, and new buildings have been erected. It is expected that in the near future this typewriter will receive the favor to which its undoubted merits entitle it.

In 1854 was established the Stamford Gas-Light Company, and in 1855 the works were erected and the mains laid in the principal streets of the village. The price was then \$5 per thousand feet; it is now \$1.75. In the early seventies the works were entirely rebuilt, and again in 1889 there occurred an almost entire reconstruction of the plant; each enlargement was imperatively required by the growth of the place and demand for gas, and there has been a corresponding extension of its mains. An approved form of water-gas is now manufactured. The company's financial record has been prosperous, and for a few years it was in active competition with the Stamford Electric Lighting Company, with which it consolidated in 1893.

Electric Lighting was commenced in 1886, by the Stamford Schuyler Electric Lighting Company, in a building on Advocate place, and was succeeded, in 1889, by the Stamford Electric Lighting Company above mentioned, and the power-plant was removed to its present location on Garden street in the same year, and greatly enlarged. In 1896 a very large and complete building was erected on the waterfront at the water-side. Power is also furnished for the trolley system of the Stamford street railroad. The facilities of the company have been kept up to the demands of its service by the adoption of many improved processes and devices. The street lighting of the city is by electric light, and for stores and residences it is largely used. The capital stock of the combined companies, incorporated as the Stamford Gas & Electric Company, is \$500,000, and is in good demand for local investment.

In 1856 a company was incorporated for supplying the village of Stamford with water for domestic and manufacturing use, but before any active steps were taken in this direction, the cares and excitements of the Civil War threw all lighter matters into the background, and it was not until after the war that the project was again

agitated. In 1868 a charter was granted to the Stamford Water Company, and its organization was completed in 1869. A mill-site at Cox's mills, on Mill river, about five miles to the north of the centre of the present city was purchased, and a new dam erected, and water-mains laid to the village in 1870 and 1871.

In June of the latter year the water was let into the supply mains, and the event celebrated as one of the great occurrences in the history of the town. The ordinary supply of water is obtained from Mill river and taken into the pipes at Cox's dam above mentioned; but in addition to this, shortly after the formation of the company, a large sheet of water known as Trinity lake was purchased soon after the inauguration of the water supply, in the town of Pound Ridge, Westchester County, N. Y., about thirteen miles north of Stamford. The water from this lake is let down into Mill river when required to reinforce the ordinary supply, but it has not been necessary to make use of this resource for any length of time excepting during three summer seasons. In 1895 the dam at this lake was raised five feet, giving it a storage capacity of four hundred and fifty million gallons, or a supply for nine months at the present rate of consumption. In 1882 the company added to its equipment, a delivering reservoir at Simsbury, about two miles north of the centre of the city, with a capacity of five million gallons, and ordinarily the water consumed in the city is taken through this reservoir, though direct connection with Cox's dam reservoir can be made at any time. In 1891 this company added, by purchase of Mead pond or Siscowit lake, another storage reservoir with a capacity of eighty million gallons. This purchase is mostly situated in the town of Pound Ridge, but the boundary line between the states of New York and Connecticut passes through it. The portion in Connecticut is situated in the town of New Canaan. A new dam has been constructed at the foot of the lake, and its waters are delivered into the east branch of Mill river as required. The whole water-shed of Mill river for about thirteen miles has thus been placed at the disposal of the company, and the supply seems ample for an indefinite period in the future. Recent dry seasons have taxed the water supplies of neighboring cities, but Stamford has always had a full supply and a large unexhausted margin of safety. The company has continuously during its progress not only largely extended its mains, but also largely increased its facilities by adoption of new appliances, the improvement of its grades and the enlargement of its trunk mains. The original issue of capital stock was \$80,000; its present capitalization is \$360,000, and it has a bonded debt of \$70,000, all expended in construction and equipment, and testifying to a large and healthy growth. Its stock is much sought for, but closely held.

The products of the YALE & TOWNE MANUFACTURING CO., like those of the Stamford Manufacturing Company previously mentioned, have a world-wide reputation, and have made the place of their manufacture familiar to remote nations. The history of this important corporation can best be followed by considering first its growth and external history, and afterwards turning to its products and processes of manufacture.

Previous to the year 1868, Linus Yale, Jr., and his father before him had been identified with the manufacture of locks, and the name had become well known as applied to bank-locks of superior construction. Mr. Yale had, however, not long before invented the flat-key lock, now so well known as the "Yale Lock." This latter lock came under the notice of Mr. Henry R. Towne, and he formed a connection with Mr. Yale for the more extensive development of the invention by employing a larger capital. The works of Mr. Yale were at Shelburne Falls, Massachusetts, where he employed about twenty-five or thirty men. Pursuant to the new arrange-

ment, land was purchased for a new factory at Stamford, and the erection of a new building begun. The business was incorporated under the name of the Yale Lock Manufacturing Company, but the stock was all owned by Mr. Yale and Mr. Towne. Mr. Yale continued the works at Shelburne Falls, but died before the Stamford plant was fully completed. In the spring of 1869 the business and machinery were moved to Stamford. A short time after the interest of the estate of Mr. Yale was acquired by Mr. Towne, who had become the president of the company, and for a decade the corporation was, in effect, his property.

The flat-keyed lock was the invention of Mr. Yale. Its manufacture and development in excellence and universal acceptance as a standard are the work of Mr. Towne.

In 1881 the business had grown so as to require the services of several hundred employees, and additions of capital to afford increased facilities became necessary. The capital was increased to \$500,000, and was largely and eagerly subscribed for by the public at large. Subsequent increases were made up to \$1,000,000. In 1884 the name of the corporation was changed to The Yale & Towne Manufacturing Company, its now familiar name. The works of the company have so increased that from a very modest brick factory in 1869, building after building has been added, and now the company's property extends over more than twenty acres, including its numerous buildings and adjacent yards. The buildings are models of modern factory construction, and for convenience in shipping a spur track from the line of the New York, New Haven and Hartford Railroad Company extends into the company's yard.

During its career the company has absorbed the United States Lock Company, of Kingston, Mass.; the American Lock Company, of Cazenovia, New York, and the Branford Lock Company, of Branford, Conn. In general settlement of a long and hard-fought litigation with Sargent & Greenleaf, of Rochester, N. Y., over the rival bank (time) lock patents of the parties, a pooling agreement was made with the latter company.

When running at full capacity more than fourteen hundred employees have been at work in the company's various departments of manufacture and sale. Offices are maintained at New York, Boston, Philadelphia, Chicago and San Francisco.

Passing now to the internal history of this industry, it is first to be observed that the invention of the Yale Lock formed an era in lock manufacture. Previous thereto a heavy lock and thick door necessitated a long key, and a key of strength and weight proportioned to the work to be done. This necessitated pretty large key openings, easily accessible, and invitingly open to the skilled manipulation of expert criminals. But Mr. Yale's invention separated the key mechanism of a lock from the bolting mechanism and enclosed the former in a separate cylinder. It was then feasible to use a small flat key, moving in a small opening in a cylindrical plug, the latter forming the axis or bearing by which the key operated upon the bolt mechanism. Pin tumblers are adjusted in the cylinder of the lock to the varying notches upon the upper edge surface of the key, which, when inserted in the cylinder, raises the pins to a uniform height and allows the cylinder to turn and operate the bolt mechanism. It is said that a variation of one-fiftieth of an inch in the fitting of the key prevents the operation of the lock. An almost endless number of permutations can therefore be produced, without duplication of a key or lock, affording an unrivaled advantage over ordinary locks in this regard. The superiority of this form of manufacture was at once recognized, and was attested by numerous inferior, and often infringing, imitations during the life of the Yale patents, and by its general

adoption since the expiration of the foundation patents. But this company has still kept the lead in public favor by the excellence of its product in detail, and the numerous improvements which have been engrafted on the original invention. The invention of the corrugated key to take the place of the flat key was a distinct advance in making the lock more inaccessible in its interior mechanism and safer from manipulation. A still further advance has been made in the production of the paracentric key, which is the one found in the Yale locks of recent manufacture. This key can be made sufficiently thick and strong for all purposes, and the irregularity of the key-way is still greater than with the corrugated key, thus insuring almost absolute inaccessibility.

This mechanism has been applied to a great variety of locks made by this company, of which, perhaps, the most widely and favorably known is the combined latch and lock for outer doors, in which the same key operates both a night latch and dead-bolt combined in one lock, and prevents one being locked out of his own house.

The worth of the devices above mentioned is enhanced by the most exact care and finish in detail of manufacture, which still keeps the product of this company in advance of competitors, even in those matters where patents no longer afford protection.

As is well known, the locks of this concern were largely adopted for post-office boxes, and soon a department for the manufacture of entire post-office outfits became a prominent part of its work.

Fine locks suggested fine hardware, and eventually the manufacture of all sorts of door and cabinet hardware in bronze and iron became an important part of the company's activity. The resources of artistic form and design have been utilized to the utmost in this department, and its product, like the well-known locks, is standard, and but few competitors make any attempt to rival it. Several artists and a corps of skilled designers are always at work producing new forms, either for special designs for particular structures or apartments, or for sale in the general market.

Among all the diverse forms of manufacture which the company has from time to time added to its product, the original department of bank vault locks has progressed with the others, and a Yale vault-door, with its apparatus of time-lock and combination lock combined, and the automatic bolt-operating mechanism, is alike the admiration of all who appreciate combined beauty, strength and safety, and the despair of the criminal operator.

The little band of skilled operatives who came nearly thirty years ago from Shelburne Falls to Stamford, in the employ of this company, has become greatly augmented, but still the corps of employees is largely a body of picked men, as must needs be from the care and ability necessary to turn out so fine a product. Both in those who have from time to time come to the service of the Yale & Towne Company from other places, and in the large number of the generation born in Stamford since the plant was here established who have also found employment, the town finds a large group of most intelligent citizens, a source of pride and strength; while the careful and elaborately systematized methods employed in the transaction of the business of the corporation has had a distinctly marked and favorable influence on the business community at large.

The oldest of Stamford's financial institutions was the Stamford Bank, chartered by the legislature in 1834. Bank charters in that day were not granted as a matter of course, and frequently a bonus to some state or public institution was exacted as payment for the privilege of incorporation. Wesleyan University, of Middletown,

then recently founded, was in need of any funds which might be directed to its coffers, and so it was provided in the charter of the Stamford Bank, that it should pay to Wesleyan University the sum of \$5,000, as a prerequisite to doing business. Its original capital was \$50,000, afterwards from time to time increased. This bank served the community for a radius of many miles, and always maintained a high standing. Owing to its great distance from Boston and its nearness to New York, it declined to join in the excellent system of redemption carried on with such signal success by the Suffolk Bank, of Boston, and redeemed its notes through a New York correspondent bank. The Suffolk Bank tried for a long time its usual and generally successful coercive policy of having its agent appear at odd times and unannounced, with a bagful of notes for redemption in specie, but never caught the Stamford officials napping; the bank was popular, and the news of the redemption agent's approach from the East always came ahead of him in time for the bank to be prepared with legal tender. Once there was an exciting race between the agent coming from New Haven and the coin coming from New York, but when he arrived the coin had preceded him.

The bank was for a short time located in the dwelling-house of Isaac Quintard, a prominent citizen of the place, but soon a building, previously occupied by John W. Leeds, the first president of the bank, as a grocery store, was enlarged by having an addition built in front, of a fearful and wonderful gothic type, painted and sanded to imitate brownstone. This was the abode of the bank until 1886, for many years the admiration of the town as a fine and ornamental structure; but as the town grew and modern buildings of architectural merit were erected, in later years it was the object of much witty and good-humored depreciation from its own stockholders and the public at large. In the last-named year, the bank moved into a new banking-house, which it occupies conjointly with the Stamford Savings Bank; a building standing on a triangular site at the junction of Main and Bank streets, and in every way in contrast with the older building, but in accord with the solid character of the institution which it shelters. In 1865 the bank was re-organized under the national banking law, and became the Stamford National Bank, with a capital of \$202,020. It has now a surplus, and undivided profits of \$136,000, and a recent balance-sheet shows assets of \$943,000.

Mr. John W. Leeds, above mentioned, continued as president of the bank until 1878, the year of his death, and was succeeded by Mr. Charles A. Hawley, the present incumbent.

For nearly thirty years this bank occupied the field alone, and was a very efficient factor in the development of the town and its vicinity, and is called in affectionate appreciation the "Old Bank."

In 1863 the need of greater banking facilities, combined with aggressive patriotism, somewhat accentuated by the more than conservative attitude of the Stamford Bank in the political contests which then raged so hotly, led to the formation of the First National Bank of Stamford. Its founders were Republicans in active sympathy with the national administration, and men of high financial standing and ability. Yet by many the institution was regarded as a very doubtful venture, and not a few prophecies of its early failure were heard. Nevertheless the bank was a success from the start. Its first president was Dr. Henry M. Humphrey, and he was succeeded in 1874 by Charles W. Brown, who held the office until his death in 1892, and was succeeded in turn by Alexander R. Turkington, the present head of the bank. The latter entered the service of the bank as its junior clerk in 1863. There has always been in the directory of this institution a large representation of New York

business men, resident in Stamford, and its management has been not only safe, but highly progressive. Its first location was in one of the stores in Seely's block, then recently constructed, and it remained there for ten years, when, in 1873, it removed to its new building on Atlantic square, which it now occupies in common with the Citizens' Savings Bank. The capital is \$200,000, surplus and undivided profits, \$180,000, and assets by last statement, \$930,000.

The Stamford Savings Bank was incorporated in 1851, and then and ever since has been housed in the same building with the Stamford Bank and its successor, the Stamford National Bank. In April, 1852, its statement shows deposits of \$8,744.15. Its last statement gives the same item at \$2,657,000, with a surplus of \$180,000. Connecticut savings banks are largely managed by their treasurers, who are the executive officers and in all ordinary affairs the responsible managers. Passing over three persons who held the office of treasurer of this bank during the early and comparatively unimportant years of its existence, we find the same long service and continuity of management as in the Stamford Bank. Alfred A. Holly was treasurer for thirty years, and was succeeded in 1888 by Franklin Miller, the present treasurer. The life of this bank has been the quiet, uneventful one of a prosperous and ever-growing institution, attracting little attention, yet touching at many points the welfare of the people of its vicinity. Its roll of depositors is a quite complete catalogue of the substantial inhabitants of the place, and few, indeed, are the plots of real estate in the city on which at some time it has not had a mortgage.

Very much the same influence which led to the formation of the First National Bank of Stamford, led to the foundation of the Citizens' Savings Bank, of Stamford, in 1869. The same close relation noted above as existing between the two older institutions, obtains with this savings bank and the First National Bank, and the management of its affairs has largely been in the hands of those prominent in the direction of the National Bank. Its treasurers have been: William C. Hoyt, from 1869 to 1883, and Henry V. Riker from the last date to the present time. Its deposits at present amount to \$1,983,407.27, and it has a surplus and undivided profits of \$78,000.00. This bank has always been characterized by liberal management and up-to-date methods, as well as by the most scrupulous care in its investments, and so occupies a very high place in the popular regard. Many improved ways of management which have found general acceptance among the savings banks of the state, have had their origin and test in this bank, and it is cited by the Bank Commissioners as a model bank.

In 1889, the great and continued growth of the place seemed to justify still another bank, and in that year the Stamford Trust Company was chartered by the General Assembly of Connecticut, and began business in July, 1891, with a capital of \$100,000.00, and a paid-in surplus of \$25,000. It conducts a general banking business, has a savings department, and also administers estates of decedents and executes trusts confided to it by the courts. This bank has met with generous favor, and on January 1, 1887, had assets of \$1,144,134.00. Its business is conducted on the corner of Main and Atlantic streets, in an attractive banking-house. The president is John A. Brown, long a prominent citizen of the place, and its treasurer, Walter D. Daskam, for some years before connected with the Stamford National Bank.

The Stamford Safe Deposit Company, which has quarters in the Stamford Savings Bank building, and the Burlington Safe Deposit Company, located in the newly-erected Burlington Arcade, furnish ample facilities for the storage and safe keeping of valuables.

For a long time there had been a public demand for a street railway in Stamford,

but owing to the peculiar geographical situation of the place and the plan of its streets, it was not considered a desirable location for such an experiment. Largely through the instrumentality of Mr. William R. Fosdick, formerly a prominent resident of the place, the Stamford Horse Railroad Company, incorporated in 1886, undertook the construction of a horse railroad, which was completed and opened in January, 1887. The road was not prosperous, and was foreclosed by the bondholders and sold in 1889, when it passed as re-organized into the hands of the Stamford Street Railroad Company, by which it is now operated. Since this time an extension to Shippan Point, a popular seashore resort of the town, has been added to the line, which previously had traversed some of the principal streets of the city, and in 1895, the motive power of the road was changed from horses to electricity. Very soon after this the control of the company passed to the New York, New Haven and Hartford Railroad Company, and the roadway and rolling-stock have been greatly improved. Connection is now made at the boundary between Stamford and Darien with the line of the Norwalk Tramway Company, which operates a line eastward through Darien to Norwalk. In the latter part of 1896, a large new power-house was erected, with facilities for supplying power to the road and for any future extensions, and is fully equipped. Previous to that time, the electric power had been furnished by the Stamford Gas and Electric Company, in connection with its electric-lighting plant.

MISS AIKEN'S SCHOOL FOR GIRLS.—In April, 1855, Miss Catharine Aiken, who had previous to that time been engaged in teaching in her native town of South Yarmouth, Mass., came to Stamford and opened a day school for girls. The excellence of her work was so evident that in the autumn of the same year she was appointed principal of the Stamford Female Seminary, a boarding-school then recently incorporated, and continued in that capacity for five years, when the corporation was dissolved. She then again established a school of her own in another location, and finally after other changes of abode, it was established in its present location opposite Bedford Park in 1880. The buildings at this place have been more than once enlarged to meet the growing needs of the school. Here, in 1896, Miss Aiken completed fifty years of teaching, forty of them in Stamford. Not far from three thousand pupils have during this period come under her instruction in Stamford, and are now scattered all over the United States. This school has always been favorably known, and in its later years very widely known, so that the applications for admittance to it have usually been in excess of the accommodation of its boarding department. Its quota of day scholars has also been large. In not a few instances the daughters of old pupils have sought in this school the advantages enjoyed and appreciated by their mothers. The participation by the public at large, who have attended special courses of lectures provided primarily for the attendants of the school, has been a marked feature in connection with the school. In recent years a staff of ten teachers has been employed in the ordinary work of the school.

During the latter part of Miss Aiken's educational career, much attention has been attracted to her methods of mind training, brought to a high degree of efficiency in training the pupils to habits of attention and concentration of mind, producing results which are surprising to a degree. This method, given to the world in Miss Aiken's "Methods of Mind Training," published in 1896, has been recognized among educational experts as a notable addition to pedagogical science.

In 1896 Miss Aiken retired from active work and disposed of her school to Mrs. H. B. S. Devan, a granddaughter of Henry Ward Beecher, who is now successfully conducting it upon the old lines, which have proved so successful in the past.

MISS LOW AND MISS HEYWOOD'S SCHOOL FOR GIRLS.—In or about the year

1866 Mrs. Christianna E. Richardson established a school for girls in Stamford with a few pupils, which soon came to be located in Willow street, in a quiet and, at the same time, very accessible part of the city. The school at once took high rank, and increased in numbers. It was conducted by Mrs. Richardson for seventeen years, and during the latter part of the time its yearly attendance was from thirty to forty, including ten or twelve boarding pupils. Mrs. Richardson had a passion for thoroughness and accuracy, and insisted on the attainment of these as an essential prerequisite to any advanced culture or elegant accomplishments. She was an earnest teacher, with a more than professional interest in her work; and it was with great regret that she was compelled by advancing age and feeble health to retire. In 1883 Miss Louisa Low and Miss Heywood succeeded her in the management of the school, and are its present heads. Mrs. Richardson died in 1884. Under the conduct of Miss Low and Miss Heywood the school has steadily grown, and the annual attendance averages from seventy to eighty, including generally fifteen or sixteen boarding pupils. Considerable enlargement of the school buildings has been made under the present management, but the number of pupils in the boarding department is designedly limited, so that it may not be so large as to render difficult the maintenance of the pleasant home life which has always been a feature of the school. By this plan the mental training is supplemented by careful attention to the physical and moral development of the pupils, while there is not the necessity for rigid and routine restraint which exists where larger numbers are brought together—self-control takes the place of formal obedience. In the school at large the classes are kept small, so that the instruction is practically individual. There are thirteen instructors in the various departments. Pupils are prepared for college; and such a standard is maintained that the certificate of the school is accepted in lieu of examination by all colleges where such a privilege obtains. The regular course of the school, however, takes the pupils considerably beyond the requirements for admission to college. The regular instruction of the school is supplemented by literary and scientific lectures and other special means of culture. The number of different pupils who have attended the school since 1883 is four hundred and eighty-three.

MR. KING'S SCHOOL FOR BOYS.—In 1875 Mr. Hiram U. King, a graduate of Dartmouth College in the class of 1873, who had become favorably known as a teacher, upon the invitation of a number of representative residents of Stamford, established a school for boys, which flourished from the start. In 1878 he erected a school-house on Bedford street, designed by Gambrill & Richardson, which has since been enlarged, with due attention, however, to symmetrical and tasteful outline, and convenient interior arrangement. The school is primarily a day school, but the principal has, during a greater part of the school's existence, had also a few boarding pupils in his family, having at one time as many as twenty, but has latterly limited the number to ten or thereabouts. From year to year, from eighty to one hundred pupils are in attendance, and, including the principal, there are eight teachers. About five hundred pupils have attended the school since its beginning, and of this number more than one hundred have successfully entered college, distributed among the leading institutions of the East. Many have received their entire education at the school, entering when quite young and remaining until graduation and entrance into business life, a fact which has done much to build up school feeling and tradition. Already those who have gone out from it are occupying positions of responsibility and some prominence in the community. Those also who have gone from this school to the colleges have not only entered well, but done well, and in many colleges this school is favorably known and commented on for the thoroughness of the preparation

it gives. An ample athletic field within a short distance of the school-house has afforded opportunity for a number of years for general physical exercise and competitive games, and its facilities are rationally enjoyed by the pupils of the school.

In short, this school is not only well equipped, but well established; it satisfies a recognized need, and satisfies it well.

WESTPORT.*—THE "LEES MANUFACTURING COMPANY."—The history of the cotton industry of Westport, Conn., was written in November, 1890, by the late Mr. Thomas R. Lees, one of the principal members of the "Lees Manufacturing Company," and the facts here given are collected from said history.

The first meeting of the organization of a company for cotton manufacture was held January 7, 1814, at the house of Ebenezer Jesup, and at that meeting a constitution and by-laws were adopted, and books opened for subscriptions, which amounted to \$42,000. In February of the following year the amount was raised to \$56,000. The first directors, chosen February 14, 1814, were Ebenezer Jesup, Lewis Raymond, David Richmond, Samuel B. Sherwood and Samuel Kellogg. The first stockholders were: John L. Wilson, Moses Judah, John Tiebout, Ichabod Pratt, Samuel Kellogg, Ebenezer Jesup, Joseph Chapman, David C. Banks, Charles Bostwick, Samuel Avery, Bartholomew Ward, Joseph Ward, Charles Osborn, Joseph Cornell, Lewis Raymond, David Richmond, Zalmon Burr, Jarvis St. John, Mary Clift and Eliphalet Coley.

Ebenezer Jesup was chosen president, and the company was known as the SAUGATUCK MANUFACTURING COMPANY. This name was changed in 1818 to the "Richmondville Manufacturing Company," in honor of Dr. David Richmond, a prominent and active member of the company.

The act of incorporation was given by the General Assembly, at Hartford, October, 1814; the purpose of said company being the manufacturing of cloths and other fabrics of wool or cotton. A contract was made in March, 1814, for the erection of a suitable building, which was built, and machinery purchased and business commenced in 1816. Lewis Raymond, as agent for the company, managed the business for the first few years, which was subsequently leased to Joseph Wood, who, in 1842, abandoned it.

In the spring of 1844 John Lees and John P. Dryden came from Worcester, Mass., leased the building for five years, and started the business. In 1858 Thomas R. Lees, son of John Lees, became possessed of all the stock of the company and operated the factory until March, 1878, when the factory and all its contents were destroyed by fire. It was rebuilt 1880, and rented to the "Lees Manufacturing Company," who now, September, 1895, occupy the same. Mr. Thomas R. Lees died July 25, 1894.

THE MOROCCO INDUSTRY.—The factory, erected for this industry, was built in 1835, by R. and H. Haight, of New York, and, while owned by them, was under the management of Daniel Kemper. In 1855 the Messrs. Haight sold this factory to Charles H. Kemper, who continued the business until 1885, when he sold it to G. A. Shepard & Son, of Bethel, Conn. G. A. Shepard & Son remained there until Oct., 1893, when the property was sold to Mr. Eli Smith, the present owner.

THE "EMBALMER'S SUPPLY CO."—The manufacture of the celebrated "Utopia Embalming Fluid" is extensively carried on by Messrs. C. B. Dolge, president, Max O. Huncke, secretary and chemist, William Gray Staples, treasurer, and Auguste Renonard, demonstrator of the U. S. School of Embalming.

* By James E. Coley.

Mr. Carl B. Dolge, the president of this company, received a liberal education in Germany and came to this country in 1847. He at first became a skillful engraver with the publishers Harper & Bros., of New York. Next he engaged successfully in the manufacture of felt at Dolgeville, N. Y. In 1886, with Mr. Max O. Huncke, he commenced the manufacture of the fluid in question. The industry has become very extensive, and several car loads of this embalming fluid have just been sent to St. Louis, Mo., and has become justly celebrated, and is used, in every state of the Union.

The following notice of Mr. Huncke's work, as chemist of this industry, is clipped from a recent article, detailing his discoveries in this department of business: "The famous Utopia fluid is a product of his experimental researches, and to him is due the discovery of 'Phorencina,' the wonderful preserving agent, which, although non-poisonous, possesses antiseptic properties equal, if not superior, to corrosive sublimate. Several colleges of surgery and medicine have adopted Phorencina as an agent of preservation for the subjects intended for dissection, with such astonishingly successful results that the exclusive use of Phorencina for the purpose in all the medical colleges of America has now become an assured fact in the near future. Other disinfecting agents, such as Utopine, Antidotina, the fumigating cones, and Kauterion, are the discoveries of Mr. Huncke, whilst the great improvements made in many of the bleachers, hardening compounds, hypodermic solutions, etc., are entirely due to his skill."

The same article speaks of the treasurer, Mr. Wm. Gray Staples, as an "able financier, and his tenure of office as treasurer of the 'Embalmers' Supply Company,' has been marked by a continuous prosperity in the financial affairs of the company, which illustrates his tireless activity and his excellent business qualifications."

Of Mr. Auguste Renonard, demonstrator of the "United States School of Embalming," which was founded by him and Mr. Carl B. Dolge, we learn that "to the indefatigable exertions of Mr. Renonard are due many of the discoveries which have brought the process of embalming to its present position. The elimination of blood by means of flexible tubes, the use of the parietal needle, the improved methods of arterial injections, the production of the Renonard and Ralcohol embalming fluids, and several disinfecting and antiseptic preparations are proofs of his constant labors."

The "Embalmers' Supply Company," of Westport, Conn., thus represents one of the *active* and *successful*, as well as important industries of this vicinity, and a larger and more extensive appreciation of it is predicted.

THE SATCHEL FACTORY INDUSTRY.—This business was commenced in Westport in February, 1880, with eight hands, making from ten to twelve bags a day. The business steadily increased, until, in 1893, there were three large buildings, one hundred by thirty feet, and one hundred and twenty-five hands employed. The number since has been reduced. During the most prosperous period two hundred bags per day were manufactured. These embraced all qualities, from the cheapest to the best alligator skin. Mr. John D. Wood, owner and proprietor, furnished the above statistics, and stated that he has been in the business since 1867, and gradually advanced to the position of clerk and assistant manager, until he established the business in Westport, as above stated. The goods made in this establishment are second to none in the country, those of the highest grade being superior in material and finish.

AXE AND EDGE-TOOL INDUSTRY, WESTON.—The manufacture of axes and edge-tools was commenced in 1812 by Wakeman Bradley. His axes, which were hand-made, were justly celebrated, and found large and ready sale, and the business was

very prosperous. In 1834 his son, Gershom W. Bradley, established another factory four miles south of the original site. This was destroyed by a freshet in 1854, but was immediately rebuilt, and a successful business is carried on at the present time by De Witt C. and Gershom, sons of Gershom W. Bradley. The original site selected by the pioneer workman, Wakeman Bradley, has long since been abandoned.

THE FIRST NATIONAL BANK OF WESTPORT.*—The first petition for a bank in Westport was made in 1835, when three or four gentlemen went to Hartford to present it. The bank commissioners reported favorably, but banks of Bridgeport, Southport and Norwalk defeated the enterprise. A second petition was made with a like result. The next proposition was to join with Stamford, which then had no bank of its own, but after the matter had been agitated, the people of Stamford decided that they would establish a bank of their own, which they did.

Every effort to establish a bank in Westport was defeated until the year 1852, when the free banking law was passed, and, under that provision, a bank was established in the town.

The following history of this bank is given by Mr. Horace Staples, who has been its president from almost its organization. He writes: "The bank was fairly started January 1, 1853, David M. Marvin being president for ten months, and during November and December it was governed by the directors, who then were Horace Staples, Alva Gray, Gershom B. Bradley, Wm. D. Bishop and J. B. Williamson."

In January, 1854, the board of directors consisted of Horace Staples, Matthew Bulkeley, Edmund W. Taylor, James Smibert, Edward H. Nash, Franklin Sherwood and Francis W. Jesup. It should be stated that in the summer of 1853 the bank was removed to Saugatuck by the vote of a majority of the stockholders. Two-fifths of its stock was owned in Bridgeport, and those stockholders were unanimous in causing its removal. This gave great offence to our east-side citizens, who had but seventeen hundred dollars' interest in the bank, owning five shares, and Levi T. Downes twelve shares.

The Bridgeport stockholders were induced, by a worthy railroad man, to subscribe forty thousand dollars, with a promise that the bank should be located in Saugatuck; also with a promise to take the stock off their hands at any time when requested, so that in 1854 thirty thousand dollars was demanded by the Bridgeport stockholders. In order to save the bank, one of the directors, by great exertion, obtained the required amount in cash subscriptions, on condition that a 5 per cent. dividend would be paid in January, 1854. Among these Bridgeport subscribers were Robert Schuyler and brother, two thousand shares each, and Governor Morris two thousand dollars, each of whom borrowed money of the bank to pay for their stock. Robert Schuyler's note was the first to come down after abandoning, and an attachment was ready for his stock the moment the bank closed. By this means his debt was secured to the bank; for, a few hours after, a man from New Jersey appeared to transfer the same to him. The note of the Schuyler brothers, and that of Governor Morris, were thus saved.

It is difficult to describe the fiery trials of the bank in 1854. After that date the bank never failed, for over thirty years, of paying a semi-annual dividend of four per cent., giving its stockholders over eight per cent. per annum—equal to over \$280 net profit in thirty years for every \$100 stock. Since 1882 we have made only three per cent. semi-annually, have a surplus of \$60,000 profit and loss account, and stand,

* By James E. Coley.

at this date, August, 1895, as sound as any bank in America. Throughout the year 1857 this bank continued to pay specie, and, during its whole existence has never failed to pay a semi-annual dividend.

In 1855 the Free Banking Law was repealed through a resolution brought by Zalmon Wakeman before the legislature, proposing that there be but one system of banking in the state.

The president of this bank has always been a decided advocate of the National system. One of his first articles written on the subject may be found in the *Merchants' Magazine* for 1862. 'This bank adopted the National system early in 1863, as soon as possible after the act was passed.'

Mr. Horace Staples,* its president, is serving as such on his forty-second year, and in the ninety-fourth year of his age (1895).

* Mr. Horace Staples died March 6, 1897, æ. 95 years.



CHAPTER XCI.

MANUFACTURING INTERESTS OF NORWICH.

BY C. E. CHANDLER.

IN 1659, when the population of Saybrook, Conn., was very small, its minister, the Rev. James Fitch, and its chief military man, Capt. John Mason, of Pequot fame, with about half the citizens, decided to emigrate and found a new settlement at the head of the Thames river, which they named Norwich.

It is said to have been so named in honor of the manufacturing city of Norwich, England, at the suggestion of William Backus, the oldest man among the emigrants, and who came from Norwich, England, and whose descendants established iron works here.

Much speculation has been indulged in by local historians as to the more direct cause or causes of this swarming. The writer ventures here to give a reason not, as far as he knows, hitherto suggested. Although the original Saybrook settlement began in 1636 or 1637, they had no power grist-mill till 1639 or 1640, and then on account of lack of water-power they set up a wind-mill. The nearest available water-power was on the Oyster river, three or four miles away, where, after the population spread to that point, a grist-mill run by water-power was built in 1662.

In contrast, the site of the Norwich settlement was bordered by the Yantic, a river of moderate size and rapid fall, furnishing numerous favorable sites for mills of any kind, and on this stream a grist-mill was promptly built by John Elderkin, in consequence of an agreement made in Saybrook before the exodus. While its convenient water-power may have been one of the reasons why this point was selected, it is quite certain that Captain Mason and his neighbors had little idea of the future importance of the town they were founding as the seat of numerous manufactories.

Norwich may be best known abroad by the beauty of its scenery, on account of which it fully merits its pet name of "The Rose of New England." The fact, however, that it is situated at the head of navigation on the Thames river, at the junction of streams draining twelve hundred and fifty square miles of watershed, and able to furnish twenty-three thousand available horse-power for manufacturing purposes within a comparatively short radius, has naturally caused it to become a manufacturing centre.

Until the invention of improved machinery, this power for the most part lay idle. The first saw-mill was not built until 1700. From 1690 to about 1710 efforts were made to establish a fulling-mill. Later fulling-mills, clothiers'-shops, dye-shops, brass-works, pot and pearl ash-mills, chocolate-mills and oil-mills were in operation. Ship-building was begun in 1694, and for a long time was an important industry.

Iron-works were established at Fitchville by Joshua Abel and Nehemiah Huntington, and at Yantic by Elijah Backus about 1750, and during the Revolutionary War they were important industries. The manufacture of clocks and watches, nails, wire, tape, combs, gloves, stockings and purses, stocking-loom, pottery, wool-cards and leather was also carried on to some extent.

The earliest industry that has continued to be an important local industry up to the present time is that of paper-making. Christopher Leffingwell began the manufacture of paper in 1766. His mill upon the Yantic river above the falls is said to have been the first one in the state. He employed ten or twelve hands, and turned out about thirteen hundred reams of paper annually. In 1790 Andrew Huntington made paper below the falls. Paper machines, however, were unknown at that time.

Dr. Joshua Lathrop established a cotton factory at the town plot in 1790, using five jennys, one carding machine and six looms. This is worthy of note as an effort to manufacture cotton cloth on a considerable scale, carding, spinning and weaving under one roof, without the aid of water or steam power, before the invention of the cotton gin and before the invention of Arkwright and others of improved spinning machinery. It was not then considered that there was much, if any, need of cloth being woven outside of the dwellings of the people. Samuel Slater and other pioneers expected to spin only.

In 1803 the manufacture of hemp was begun at the Falls by Nathaniel Howland & Co., but did not long survive. It was at this time that Samuel Slater, the English cotton spinner, tried unsuccessfully to obtain the privilege of introducing cotton manufacturing by power at the Falls.

When in a little room in Pawtucket, in 1790, Samuel Slater had successfully reproduced the spinning machinery invented by Arkwright in England, the character of the future industries of Norwich was decided, and when Francis C. Lowell, of Boston, returned from England in 1811, and set about reproducing and improving the power-loom invented by Cartwright, in England, he was scarcely able to get his first little factory to producing cloth, in 1813, before several cotton factories were started in Norwich and vicinity.

Beginning about 1807, many capitalists from other cities were attracted by the excellent water-power, and removing here became active and influential citizens and a great deal of capital from other cities has always been invested in Norwich manufactures.

In 1813 the manufacture of cotton on a large scale with improved machinery was begun at the Falls and in several adjoining towns, and cotton manufacturing has long been the leading industry in the territory of which Norwich is the natural centre.

Norwich was originally nine miles square, heaping measure. It included the present towns of Bozrah, Franklin and Lisbon, and the westerly portion of Preston and Griswold, all of which territory was set off from Norwich in 1786. Griswold was formed from the northerly part of Preston in 1816, and Sprague was formed from parts of Franklin and Lisbon in 1861. Thus Norwich originally included the borough of Jewett City and the villages of Hanover, Sprague, Bozrahville, Fitchville, Poquetanuck and the Preston bridge district.

The city of Norwich now includes the manufacturing communities—Greenville, on the Shetucket river; The Falls, on the Yantic river, and Thamesville, on the Thames river.

The town of Norwich outside the city limits includes Taftville and Occum, on the Shetucket river; Beanhill and Yantic, on the Yantic river, and Thames Valley, on the Trading Cove brook.

WATER-POWER COMPANIES.—Early industries were inaugurated, generally, by men of limited means, and naturally they located on the smaller streams, where the cost of developing power was least.

The industrial growth of Norwich has been very much promoted by the organization of water-power companies, who developed the power on the Shetucket river and leased or sold land to manufacturers. Small concerns have in this way been able to make a beginning, and in some instances, as in case of the Norwich Bleaching, Dyeing and Printing Company, industries of great magnitude have been gradually developed. In other cases the promoters of the water companies have succeeded in attracting large capitalists like the Tafts, resulting in some of the largest cotton mills in the country.

NORWICH WATER-POWER COMPANY.—This company was incorporated in 1829 for the purpose of utilizing the water-power of the Shetucket and Quinebaug rivers. The original capital stock was \$40,000. William P. Greene and William C. Gilman were instrumental in forming the company and were large subscribers. They had previously purchased extensive tracts of land on both sides of the Shetucket river and Quinebaug river, which they conveyed to this company.

The land along the Quinebaug was first purchased, and it was the original intention to build a dam on this river near the present tunnel on the New England Railroad, but the company were advised by their engineer to build on the Shetucket below the Quinebaug, thus utilizing the power of both rivers. The power on the Quinebaug was sold to others.

A wooden dam was built on the Shetucket, a canal dug and village laid out and appropriately named Greeneville, in honor of William P. Greene, who had been the most active promoter of the enterprise.

The rollway of the dam was about two hundred and fifty feet long and about fourteen feet high, and ponded about one hundred and twenty-five acres. Later about seventy-eight feet were added to the length of the original rollway.

In 1881 a new dam was built about twelve hundred feet below the old one, with a rollway four hundred feet long and about fifteen feet high. This gave about twenty acres additional pondage and materially shortened the canal.

The canal was originally designed to be connected with tide-water by locks and used for transportation, but the advent of the Norwich and Worcester Railroad caused this part of the project to be abandoned.

The fall at the different mills varies from fourteen and one-half feet to seventeen feet, and about seventeen hundred horse-power is developed. The use of the water is leased or sold to manufacturers who own mills along the canal.

A great variety of industries have been carried on by the aid of the power furnished by this company. The water is also used for washing, bleaching, dyeing, etc. The recent tendency has been toward consolidation, and the water is now mostly used by four large companies—A. H. Hubbard Company, paper; Norwich Bleaching, Dyeing and Printing Company, Chelsea Paper Manufacturing Company, and Shetucket Company, cotton.

The present officers of the Water-power Company are Hiram Cook, president; I. L. Peck, secretary and treasurer. The present capital stock is \$80,000.

OCCUM CO.—This company was organized October 14, 1864, with a capital of \$100,000, and succeeded Wequonnock Company, which was organized in 1845 by Charles Bliss with a capital of \$8,000. The Occum Company obtained control of nine hundred and fifty acres of land and all the water-power on the Shetucket between Greenville and Baltic, a fall of about forty-four feet.

This company, of which L. W. Carroll and Moses Pierce were active promoters, and the former was the largest original stockholder, has been directly and indirectly of great benefit to Norwich. As promoters this company brought the power to the attention of the Tafts, which resulted in the creation of the largest industry in Norwich, and one of the largest in the United States. The lower thirty feet with six hundred and five acres of land was sold to Orray Taft & Company, of Providence, and is the seat of the Ponemah Mills.

On the upper portion the Occum Company built a stone-masonry dam with a rollway three hundred feet long and twelve feet high in 1886 at a cost of about \$50,000, from which water is supplied the Totoket Mills. The estimated horse-power is about five hundred. Henry T. Potter was constructing engineer for the company. The present officers are L. W. Carroll, president; and J. De T. Blackstone, secretary and treasurer.

THE NORWICH INDUSTRIAL BUILDING CO.—This company was organized in 1891. H. H. Gallup is president; D. M. Lester treasurer; and Wm. H. Palmer, Jr., secretary. The object of the organization of the company was to acquire land and build suitable modern buildings in which power and room should be rented in quantities large or small for the purpose of encouraging the industrial growth of Norwich.

In aid of this object a tract of land about four hundred and eleven feet front on Falls avenue and one hundred and fifty-seven feet deep, adjoining Yantic Cove and the New England Railroad, was presented to the company by the city of Norwich. The gift also included a tract of land forty-five feet by fifty-four feet on the opposite side of Falls avenue.

The company at once began the erection of building No. 1 of brick, forty-five feet by one hundred and fifty feet, three stories high, with boiler and engine house, forty-one feet by forty-five feet, one story. In 1895 building No. 2., of the same size, was built and furnished with power from the same engine. A spur track connects the premises with the New England Railroad. There remains room for two more buildings of the same size, which will be built as soon as they are needed.

COTTON MILLS.—The manufacture of cotton goods was the first to be begun in Norwich and vicinity with improved machinery, and it has continued to be the leading industry. Three million one hundred and thirty-five thousand dollars is invested in cotton manufacturing in the present town and \$500,000 in finishing works. About \$2,000,000 is invested in nearby towns by companies whose offices are in Norwich, and \$500,000 in finishing works.

PONEMAH MILLS.—The capital stock of this company is \$2,000,000. W. A. Slater is president; Edward P. Taft, secretary and treasurer, and John Eccles, superintendent. The plant is said to be one of the three largest cotton plants in the United States.

In 1865 Cyrus and Edward P. Taft, under the name of O. Taft & Co., purchased of the Occum Company 605 acres of land and thirty feet fall on the Shetucket river. In 1870 the property was conveyed to the Orray Taft Manufacturing Company, the name being changed in 1871 to Ponemah Mills.

This company built a brick mill 750 long, 75 feet wide, four stories high, with wing 230 feet long and 60 feet wide, four stories high and machine shop 220 feet by 40 feet. A large number of tenements were built and the village was named Taftville.

Since that time an additional mill 500 feet by 103 feet, two stories high with wing about 120 feet by 60 feet, has been built and the number of tenements largely increased. The village now has a population of about 3500, with stores, markets,

halls, various shops, etc. The number of houses owned by the company is 168, in which there are 451 tenements. Sixteen hundred horse-power is furnished by a dam 400 feet long across the Shetucket river and three water-wheels 84 inches in diameter.

The new mill was run by steam until the purchase of the Sprague plant at Baltic in 1892 by Ponemah Mills. The Baltic Dam was raised two and one-quarter feet and the canal widened to eighty feet, and three new water-wheels of 2000 horse-power were put in. A stone power station 100 feet by 60 feet, five-stories high was built, in which two dynamos have been placed. The new mill at Taftville, four miles distant, and the cars of the Norwich Street Railway at Norwich, eight miles distant, are run by power transmitted by electricity from the Baltic power plant.

The regulating of the speed of water-wheels carrying such a very irregular power as that required by the Street Railway Company to such a degree as to give the looms a sufficiently uniform speed presented especial difficulties which have been overcome by the use of the Lombard Regulator.

The mills at Taftville are connected with the New England Railroad by a mile of trolley line on which a large freight electric locomotive is used.

The company make a great variety of fancy white cotton goods, to the amount of about 22,000,000 yards annually. The number of spindles is 125,000. Fifteen hundred hands are employed and about \$450,000 is annually paid for labor.

FALLS COMPANY.—The capital stock of this company is \$500,000. Arthur H. Brewer is president; Gen. Wm. G. Ely, treasurer; Maxton Holmes, secretary, and Marcellus Gould, agent.

The company owns all of the water-power on the Yantic, at the beautiful Norwich Falls. Most of the early grist, saw, oil and the early paper mills were on property now owned by the Falls Company.

The firm of Wm. Williams, Jr., & Co., composed of Calvin Goddard, William Williams, Jr., and Thomas W. Williams, began the manufacture of cotton in December, 1813, at the Falls, in the building built by the Howlands for the manufacture of hemp.

The title was changed to Williams Manufacturing Company in 1819. In 1823, the Thames Manufacturing Company built and began operating a cotton mill near that of the Williams Manufacturing Company. In 1836, the Thames Company sold their property to the Norwich and New York Manufacturing Company, and in 1837 the last-named company purchased the property of the Williams Manufacturing Company. In 1843, both properties were conveyed to Wm. P. Greene, who, in the following year, conveyed them to the Falls Company. In 1861, the Falls Company purchased the paper-mill property of A. H. Hubbard, and, in 1870, they purchased the privilege above the falls of C. A. Converse.

The upper privilege is used mostly as a storage reservoir, but is utilized in part by the Chelsea File Works. The lower privilege has a fall of about fifty-four feet, and is a natural fall, supplemented by a low stone dam.

About nine hundred horse-power is produced, the water passing first through a pair of thirty-three-inch horizontal wheels with draught-tube, and then through a ninety-six-inch vertical wheel, the former running the upper mills and the latter the lower mill. These powers are connected by a rope-drive.

The upper mills are one hundred and eighty-one feet by sixty-three feet, three stories high, and one hundred and twenty-seven feet by thirty-eight feet, two stories; and the lower mill is four hundred and forty-one feet long and partly sixty-three and partly eighty-one feet wide and three stories high. There is also store-house No. 1, one hundred and one feet by sixty feet, two stories high; No. 2, thirty-three feet by

sixty feet, three stories; No. 3, forty-five feet by seventy-five feet; and No. 4, forty feet by one hundred feet, one story; bleach-house, seventy feet by thirty feet; dye-house, two hundred feet by sixty feet; boiler-house, sixty five feet by forty-five feet; engine-house, forty-one feet by thirty-five feet; machine-shop, forty-five feet by sixty-six feet, two stories. The buildings are thoroughly protected by eight yard hydrants with city water, and a one thousand gallon per minute fire-pump and automatic sprinklers. The works are lighted by about one thousand electric lights.

A variety of colored cotton goods are made, such as tickings, awnings, ducks, domets, denims and covert cloths. About twenty-two thousand, five hundred spindles and seven hundred looms are operated. Five hundred and fifty hands are employed, making about five and one-half million yards of goods annually. The annual pay-roll is about \$160,000. The company own tenements for their help.

SHETUCKET COMPANY.—Robert H. Gardiner, president; Gen. William G. Ely, treasurer; Maxton Holmes, secretary; and Wm. G. Henderson, agent. Capital stock, \$500,000.

In 1832, the Norwich Water-Power Company sold the lower privilege at Greenville to the Thames Company, including three so-called mill privileges, each to have a capacity of four thousand spindles. This company erected a mill which was frequently enlarged. In 1837, the property passed into the hands of the Shetucket Company, just then organized. The mills have frequently been enlarged, and about one hundred and fifty-six thousand square feet of floor space is used. The number of spindles is twenty-two thousand, and there are seven hundred looms. About five hundred hands are employed, and the pay-roll is about \$150,000 annually. About six million yards of goods are made annually.

The water for power and bleaching, dyeing and so forth, is furnished by the Norwich Water-power Company. About eight hundred horse-power is used, which is furnished by four water wheels, supplemented, when necessary, by steam. The Company own tenements for their help. The company make heavy cotton goods, such as tickings, denims, domets, etc.

ATTAWAUGAN CO.—E. N. Gibbs is president, W. N. Blackstone, treasurer, and J. De T. Blackstone, secretary of this company. The office is at No. 10 Shetucket street, Norwich. The capital stock is \$600,000. The company operates the Attawaugan and Ballou Mills in Killingly, and the Pequot Mills in Montville.

Attawaugan Mills are on the site of one of the earliest ventures in cotton manufacturing in the United States. March 18, 1811, Daniel and Brayton Whitmore conveyed to John Mason, of Thompson, fourteen acres of land on the Five Mile river in Killingly, and during that year a factory was erected. A charter was granted to the Stone Chapel Manufacturing Company by the General Assembly in 1815, the corporators being John Mason, James B. Mason and Edward Mason, Jr. The property soon passed into the hands of James B. Mason, and descended in part to his daughter, Sarah B. Ruggles.

In 1830 nine hundred and ninety-two spindles and thirty-four power looms were in use. In 1836 the factory was sold to Geo. Weatherhead, who, in 1857, sold the property to Jedediah Leavens. In 1860 Mr. Leavens sold the property to Lorenzo Blackstone, Henry B. Norton, Timothy P. Norton and William T. Norton. The building having previously been burned, the new proprietors erected a brick mill, and placed in it cotton machinery with a capacity of ten thousand spindles. A joint stock company, called the Attawaugan Manufacturing Company, was soon organized. A charter was obtained in 1872, under the name of Attawaugan Company.

In 1865 the Attawaugan Company purchased of Leonard Ballou his mill and

privilege next above on the Five Mile river, and at once erected a stone mill of eighteen thousand-spindle capacity, and in 1866 this company purchased of Mowry Amsbury still another privilege up the same river, and on it a mill for weaving was erected.

The villages that have grown up around these mills are called Attawaugan and Ballouville.

In 1877 the Attawaugan Company purchased the Pequot Woolen mills in Montville, on the Oxoboxo river. These mills were on the site of early oil-mills. The woolen machinery was replaced by cotton machinery.

The Attawaugan mill is 64 feet by 232 feet, four stories high, and has 19,934 spindles and 446 looms. About 29 feet of fall is utilized.

The Ballou mill is 88 feet by 172 feet, three stories high, and has 19,406 spindles. About 24 feet of fall is used here. The upper Ballouville mill is 45 feet by 125 feet, three stories high, and has 400 looms, and the fall in the stream is 12 feet.

The Pequot mills are 137 feet by 42 feet, four stories, and 79 feet by 30 feet, three stories. The amount of fall utilized is about 45 feet. They have 9320 spindles and 238 looms.

Total spindles, 48,660, and looms, 1,084. The company manufacture sheetings, shirtings and cambrics. There are employed at Attawaugan 190 hands, Ballouville, 175 hands, and at the Pequot mills, 100 hands; a total of 465. About 9,000,000 yards of goods are made annually, and \$175,000 is annually paid for labor.

TOTOKETT MILLS Co.—This company was incorporated in 1890 with a capital of \$135,000. W. N. Blackstone is president, J. De T. Blackstone, secretary and treasurer. Office, 10 Shetucket street, Norwich.

The mills are located at the village of Occum, in the town of Norwich, and were purchased by this company of the heirs of Lorenzo Blackstone. The privilege was conveyed by the Occum Company to the Hooper Manufacturing Company in 1866, and by them conveyed to Lorenzo Blackstone and others in 1870, who changed the woolen machinery used by the Hooper Manufacturing Company for cotton machinery.

The principal mill is of stone, and is 190 feet long, 50 feet wide and four-stories high and basement. It contains 15,500 spindles and 280 looms. About 3,000,000 yards of sheetings are made annually. 150 hands are employed, and there is annually paid for labor about \$50,000.

WHITESTONE CO.—The capital stock is \$200,000. Kirk H. Leavens is president of the company, and F. J. Leavens secretary and treasurer, and the offices are in Norwich.

The mill of the Whitestone Company, located at East Killingly, was built in 1857 by Westcott and Pray, who sold it in 1865 to the Whitestone Company, whose stockholders are almost entirely Norwich men.

The mill produces cotton goods in the form of plain sheetings and goods for flour bags. The building is 150 feet by 50 feet, four-stories high and built of stone. The 8,032 spindles and 150 looms and other machines give employment to about 100 operatives. The pay-roll is about \$20,000 annually. A large part of the goods produced find a market in the flour mills of Minneapolis, to be used for flour sacks. The power is furnished by water from the Whitestone river by a wheel of 100-horse power, supplemented in dry weather by an engine of eighty horse-power.

BOZRAHVILLE CO.—E. N. Gibbs is president, and F. J. Leavens, treasurer of this company, whose capital stock is \$80,000.

The mill of the Bozrahville Company, at Bozrahville, within the former limits of Norwich, is among the oldest in New England. It was started in the year 1814

by the Bozrah Manufacturing Company, who operated it in the manufacture of cotton goods until 1825, when it was sold to the Thames Manufacturing Company, who conducted the business for a number of years. David L. Dodge, of Norwich, was one of the original projectors, and the late William E. Dodge, the New York millionaire, was employed in the mills when a young man.

In February, 1850, a joint stock company was formed and called the Kent Manufacturing Company, who were to engage in the manufacture of cotton and woolen goods. This company purchased the Bozrahville mills and operated them until 1880, when they were sold to the Bozrahville Company. The late B. W. Tompkins was general manager for nearly forty years, beginning in 1850.

The Yantic river furnishes the power to drive the 7,944 spindles and 179 looms, with the exception of a few weeks in the dry season when steam is used. A hundred and seventy-five horse-power is derived from the river with a head of thirty feet. The building is a stone structure five stories high, and gives employment to 125 hands. This mill is engaged in the manufacture of cotton goods, using about 1,000 bales of cotton a year, and produces what is known to the trade as twills. These goods are colored or printed after leaving the mill.

THE KIRK MILLS.—These mills are situated at Central Village, in the town of Plainfield, and owned by J. Leavens' Sons, of Norwich. The easterly portion of the upper mill was built about 1828, by Allen Harris and Arnold Fenner. It was about 36 feet by 50 feet, four stories high. The size has since been doubled. It is built of brick. Previous to 1828 Fenner and Richards had built a wooden mill, which has since been removed. Later the brick mill went into the possession of Fenner and Borden, and in 1845 they built another brick mill lower down the stream 70 feet by 152 feet, three stories high, with ell 40 feet by 66 feet. After the death of Borden, one Bowen became a partner with Fenner, and the firm was known as the Central Manufacturing Company.

J. Leavens' Sons purchased both mills in July, 1881, and gave them the name at the head of this article. The mills are located on the Moosup river, which furnishes them about two hundred and fifteen horse-power. A steam plant is also used in the dry season when there is not enough water to develop sufficient power. These mills have always been engaged in the manufacture of cotton goods, and at present produce a variety of light goods for conversion. The output is about 3,500,000 yards annually. These are sold almost entirely through New York brokers. Employment is furnished to one hundred and thirty-five hands, and about \$35,000 is paid for labor annually. Eleven thousand spindles and two hundred and forty looms are in use.

THE GRISWOLD COTTON MILLS CO.—Jonathan A. Pope and Lucius W. Carroll, of Norwich, in 1858 purchased the old Lindley Mill, so-called, in the town of Griswold, near Voluntown Village. The site was used during the Revolution for a blacksmith shop, where swords, nails, and other things were made to supply the peculiar needs of the times. In 1871 Mr. Carroll built a new mill of granite quarried on the premises.

It is 168 feet by 68 feet and has four stories and basement. The picker-room is an addition 68 feet by 40 feet, two stories high. The boiler and engine house is 38 feet by 36 feet. Twelve thousand spindles and two hundred and eighty looms are used in making print cloths, which are sold direct. One hundred and twenty hands are employed and the pay-roll is about \$30,000 per annum. The Pachaug river furnishes about two-hundred horse-power, which is supplemented at times by engines of one hundred and fifty horse-power and fifty horse-power, respectively. The works

are protected by automatic sprinklers and yard hydrants supplied with water from a ten thousand gallon tank elevated above roof of mill on an iron tower.

In 1896 the property was conveyed to the Griswold Cotton Mills Company, whose capital stock is \$100,000, and of which Lucius W. Carroll is president and A. P. Carroll secretary and treasurer.

NORWICH BLEACHING, DYEING AND PRINTING CO.—The company has a capital of \$500,000. Hugh H. Osgood is president; Charles Bard, vice-president; J. Hunt Smith, treasurer and general manager, and J. Millar Wilson, superintendent. The works are at Greeneville, within the limits of the city of Norwich. Works for the finishing of cotton piece goods were begun in a small way in 1840 by Pierce & Brown on a portion of the premises now occupied by the company.

In 1857 the Norwich Water-power Company conveyed to the Norwich Bleaching and Calendering Company a large tract of land between the canal and river. Subsequently the water rights and real-estate of the old Johnson mill and the Mowry Axle and Machine Company were acquired and added to the plant.

In 1882, after the works had been much enlarged, a charter was obtained and the present name adopted. It was about this time that a printing department was added to the business. The works now consist of about twenty buildings, covering three acres of ground, and having a floor space of over 300,000 square feet. The equipment of machinery is large and expensive, and no similar establishment in this country has facilities equal to those of the Norwich Bleachery, variety and capacity considered.

The styles run from common bleached cloths and plain colored goods, like cambrics, silesias, percalines, sateens and opaque shades, to an endless variety of printed work that includes dress goods, shirtings, drapines, cretones and cotton plushes. Designs of one to twelve colors on many different weaves of cloth are among the fabrics produced. In connection with the printing department an excellent engraving shop is maintained. An average of 60,000,000 yards of goods are finished annually, and one year it reached the great total of 72,000,000 yards.

Five water-wheels, aggregating seven hundred horse-power, and steam to the amount of thirty-five hundred horse-power, is in use. The company give employment to about five hundred and fifty hands, mostly men, and its pay-roll is the heaviest single item of expense. Coal is used to the extent of fifteen thousand tons annually. Its business transactions are maintained by a most effective plant and by a liberal management that keeps abreast with the spirit of the times.

WOOLEN MILLS.—Carding machines were set up at various points at an early date, but the weaving of woollen was begun later than that of cotton cloth by power looms.

Woollen manufacture in Norwich has not been as prominent an industry as cotton manufacture, and in a number of cases privileges early devoted to woollen mills have been diverted to the manufacture of cotton.

YANTIC WOOLEN CO.—This company has a capital of \$75,000. Benjamin Phipps is president, Hugh H. Osgood, vice-president, and Winslow Tracy Williams is secretary and treasurer.

The works are located at the village of Yantic, within the present limits of Norwich. The mills are on the site of the iron works carried on by Elijah Backus, that were of such great importance during the war of the American Revolution. There were at this place grist and saw-mills at a very early date, and a carding-machine later. About 1820 a cotton mill was built by John and George Tisdale for R. R. Baker, a native of Scotland.

In 1824 Capt. Erastus Williams purchased the premises and erected a woolen mill. The property, in 1865, passed into the ownership of his son, E. Winslow Williams, who built the present fine stone mill. In 1877 the present company was formed, Mr. E. W. Williams being the manager till his death in 1888. In 1865 the mill was burned, and the present stone building was erected and machinery set running within a year.

The principal mill is 170 feet by 54 feet, five stories high, with wings about 200 feet by 50 feet, three stories high; 60 feet by 122 feet, and 44 feet by 96 feet, one story. About 175 horse-power is furnished by a fall of 12 feet on the Yantic river, acting on wheels 48 and 42 inches in diameter.

The dam is about half a mile above the mill, and the water is led to the wheels through a natural cleft in the ledge of great depth and picturesqueness.

Ten sets of cards and eighty-eight broad looms are used in making about 2,250,000 yards of flannel and dress-goods annually. The goods are dyed and finished at the works, and are sold through Parker & Wilder, Boston and New York.

One hundred and fifty hands are employed, and about \$50,000 is annually paid for labor.

The mills are protected from fire by automatic sprinklers and hydrants, supplied with water from the company's reservoir.

CLINTON MILLS CO.—The capital stock of this company is \$160,000. Amasa Clark is president, Francis Cabot, secretary and treasurer, and A. J. Smith is agent. The works are located on the Yantic river, next below those of the Yantic Woolen Company.

This mill is on the site of early grist, saw, and fulling-mills, carding machines, machine shops, and stone-ware factories. In 1828 Huntington & Backus conveyed the property to the Norwich Manufacturing Company, who built a mill and began the manufacture of woolen cloth. In 1845 the Norwich Woolen Company purchased the property, and in 1850 the Uncas Woolen Company became the owners. The property was conveyed in 1855 to F. B. Loomis, who in 1859 sold it to William Elting & Company, who organized the Elting Woolen Company. In 1866 the name was changed to Clinton Mills Company.

The main mill is one hundred and seventy-five feet long, fifty feet wide, and three stories high. The power is furnished by a fall of eight feet.

About 250,000 pounds of ladies' cloth dress goods and cloakings are made per annum. The dyeing and finishing is done at the mills. 3670 spindles, 10 sets of cards, and 55 broad looms are in use. One hundred and ten hands are employed, and about \$45,000 is annually paid for labor. Goods are sold through W. L. Strong & Co., of New York.

NORWICH WOOLEN CO.—Amasa Clark is president, Francis Cabot secretary and treasurer and A. J. Smith agent. The capital stock is \$100,000.

The mills are located on the Yantic River next below those of the Clinton Mills Co. This privilege was first developed in 1845 by the Franklin Company, who purchased the land of Peter Lanman. In 1856 Francis B. Loomis purchased the property.

The Norwich Woolen Company was formed in 1863 and purchased the mills.

The mill is not now running, but formerly about 250,000 pounds of flannels and ladies' dress goods were made annually. There are 3544 spindles, 11 sets of cards and 53 broad looms. About 125 hands were employed and about \$50,000 paid for labor annually.

HALL BROTHERS.—This firm consists of Joseph, Benjamin and George Hall.

They run mills at Hallville, in the adjoining town of Preston and the Thames Valley Mills in Norwich. Their office is at 29 Commerce street, Norwich.

At Hallville they have 18 feet fall on the Stony Brook, giving about 125 horse-power, which they supplement with steam. Their main mill erected in 1880 is 200 feet by 52 feet partly three and one-half stories and partly two stories high of brick. Other buildings cover about 12,000 square feet.

They have 10 sets of cards and 57 looms and they make annually about 600,000 yards of dress goods, cloakings, broadcloths, flannels and cassimeres, which they dye and finish. About 150 hands are employed and about \$48,000 is annually paid for labor.

The Thames Valley Mills, formerly owned by Albertson Brothers and still earlier by Elijah Bill, are at the head of Trading Cove and have a fall of about twelve feet on the Trading Cove Brook, giving about fifty horse-power, which is supplemented by steam.

Four sets of cards and twenty broad looms are run, producing annually about 250,000 yards of cloakings, dress goods and cassimeres. About forty hands are employed and about \$11,000 is annually paid for labor. The main mill is of stone 50 feet by 100 feet two and one-half stories high, with wing 30 feet by 50 feet two stories.

B. LUCAS & CO.—This company consists of Benjamin Lucas, Samuel Lucas, Aaron Lucas and Albert Stafford. The mills are located at the village of Poquetanuck in the adjoining town of Preston, but within the original limits of Norwich. The privilege is on Stony Brook at the head of the beautiful Poquetanuck Cove.

The company purchased the privilege of the Merchants' and Quinebaug Banks in 1856. The privilege was first developed by Jonathan Brewster. A fall of twenty-six feet furnishes about sixty-five horse-power.

About 300,000 yards of all-wool finished dress goods are made annually. Four sets of cards and twenty-eight broad looms are used. About fifty hands are employed and about \$18,000 is annually paid for labor. W. L. Strong & Co. are the selling agents.

CORDAGE.—Cords are made in all kinds of material.

OSSAWAN MILLS CO.—This company was incorporated in 1879 with a capital stock of \$20,000. F. C. Turner is president and treasurer, and E. P. Turner, secretary.

The industry was founded in Montville in 1853 by John Turner, later removed to Willimantic, from whence, in 1861, it was moved to the building in Preston, now occupied by the Owaneco Silk Company. In 1865 it was moved to the present location on East Broad street. The buildings are forty feet by forty feet, thirty feet by fifty feet, and thirty feet by forty feet, three stories, and thirty feet by fifty-five feet two stories. The company make picture, shade and sash cords in silk, cotton, worsted and wire. Also picture and shade hardware. A specialty is made of braided and twisted wire and solid braided cord. There are fifty twistors, fifty looms and a thousand braiders operated. The goods are dyed and finished on the premises.

COURTLAND BEEBE.—The manufacture of lines and cordage at this place is one of the oldest industries of Norwich, as it was founded in 1764 by John Breed. It is located on the West Side, in the rear of Spring street. Twice during its history has the building been burned, and the present structure, although three hundred and seventy feet long, is shorter than the former buildings. A. W. Prentice & Company conducted the business for many years, followed by Eaton Chase & Company. Four years ago Mr. Beebe purchased the business. All kinds and sizes of ropes and lines

have been made in these works from a ship's hawser to a fish-line. At present only cotton and linen goods are made, in the form of clothes-lines, mill banding, sash, drum and clock cord, etc. The thread is bought ready for twisting, so that the labor required at the shop is small. About three hundred and fifty pounds of rope is turned out in a day, which finds a ready market in New York and throughout the New England states.

SILK.—Norwich was at one time affected by the craze of silk culture in common with other New England towns, but Mulberry street, across the Shetucket, in the present town of Preston, and an occasional mulberry tree is all that remains to remind one of it.

Mansfield, the home of silk manufacture, is not far distant, yet there are but two silk mills here, both run by the same company.

OWANECO SILK CO.—Charles P. Cogswell is president, C. A. Capen, secretary and treasurer, and Edwin Oldfield, superintendent. The capital stock is \$60,000.

In 1868 a stock company was formed under the name of the Norwich Loom Company, to manufacture webbings and suspenders, and they located the industry in Preston, about three-quarters of a mile from the business centre of Norwich, in a factory formerly used for the manufacture of twine. This business was continued until 1872, when the company ceased to make suspenders and began the manufacture of silk. Employment was given to about thirty hands from the start. This company conducted the business until 1875, when the plant was sold to W. H. Higgins, who sold it to the Uncas Ribbon Company the same year.

In 1879, the property was conveyed to David W. Price, who the same year conveyed it to William K. Secord, by whom the property was sold in 1882 to W. H. H. R. Higgins, who deeded it in 1883 to the Willimantic Silk Company. Willimantic men were the principal stockholders in this company, and an office was opened in that city.

In 1890, a re-organization took place, and the present company was incorporated; some Norwich capital was invested, the capital stock increased, and the name changed to the Owaneco Silk Company. Having outgrown the quarters in Preston, a new plant was purchased on Mechanic street, which doubled the capacity for work.

The Preston mill is 40 feet by 70 feet, two stories high and basement, with weave shop 80 feet by 25 feet, two stories, boiler rooms 30 feet by 35 feet, one story.

On Mechanic street, the main building is 105 feet by 40 feet, three stories high. The dye-house is 60 feet by 60 feet, one and a-half stories high, and other buildings 35 feet by 110 feet, and 30 feet by 40 feet, one story. The Mechanic street buildings were built for the Connecticut Rubber Company.

In both places, employment is given at present to from 175 to 200 hands. The goods, which consist of hat-bands, ribbon-belts, and ribbons of all sizes, kinds and colors, find a market in all parts of the United States. Seventy-five horse-power is necessary to run the machinery and furnish the electric lights.

PAPER MILLS.—The manufacture of paper in Norwich has not only been continuous since the advent of the first paper mill in the colony, but has very much increased in importance in recent years.

A. H. HUBBARD CO.—This company was incorporated in 1892, with a capital stock of \$100,000. Charles L. Hubbard is its president and treasurer, and A. S. Comstock is secretary. The company succeeded A. H. Hubbard & Co.

It is the legitimate successor of Christopher Leffingwell, the first paper maker in the state, who began the manufacture of paper above the Falls on the Yantic, in 1766, as well as the successor of Andrew Huntington, who began paper making

below the Falls in 1790. Christopher Leffingwell's executor sold the mill above the Falls in 1811 to Russell Hubbard and two others. In 1815, Russell Hubbard purchased the interests of his partners. In 1818, Amos H. Hubbard bought of Andrew Huntington his paper mill below the Falls.

Paper was at first made by hand a sheet at a time. In 1829, Amos H. Hubbard placed and operated the first Fourdrinier machine made in America. It was made by Phelps & Spafford, at Stafford, Conn., under the direction of Mr. Charles Smith, then of Spaffordville, but later of the firm of Smith & Winchester, of South Windham. Cylinders for drying were not added to the machine till 1831.

After the land adjoining each mill had been increased by further purchases, in 1837, Russell Hubbard and Amos H. Hubbard each conveyed their several mills to the firm then formed, to be known as R. & A. H. Hubbard. This partnership and ownership continued for 20 years, and until the death of Russell Hubbard, whose executors conveyed his share in all the mills to Amos H. Hubbard.

The deed shows that the upper mill contained among other machines three presses, two calenders, two ruling machines, one trimming machine and stamping press and two engines. The stone mill contained one seventy-two inch Fourdrinier and one thirty-two inch cylinder press, one rag cutter and dusters. In the brick mill there were four calenders and two presses.

In 1860 Amos H. Hubbard bought of the Norwich Water Power Company the land now used by the A. H. Hubbard Company, at Greeneville, and moved the business. In 1861 he conveyed the mills at the Falls to the Falls Company. Amos H. Hubbard died in 1865, and his son James L. Hubbard continued the business under the name of A. H. Hubbard & Co. James L. Hubbard died in 1890.

The buildings in use at Greeneville are of brick. The mill is about seventy-five feet by two hundred and fifty feet. Water for power and other purposes is taken from the Norwich Water Power Company's canal. Steam is also used for power and other purposes.

Five eight hundred pound engines, two Jordan engines, one fifteen hundred rag washing engine, two Super calenders, three Finley cutters, and one sixty-eight inch and one eighty-inch Fourdriniers are used, making about thirteen thousand pounds of colored paper each day of twenty-four hours.

CHELSEA PAPER MANUFACTURING CO.—The capital stock of this company is \$200,000. R. B. Atterbury is president; T. S. Kingsland, treasurer, and Henry Atterbury, secretary. The mills are located at Greeneville and occupy about one and three-quarters acres. The buildings, which are grouped together between the canal and the Shetucket river, are of brick. There are about one hundred and ninety thousand square feet of floor space, exclusive of a stone coal-shed and a large wooden stock-house on the west side of the canal. About twelve hundred horsepower of water and steam is used.

There are in use five five-hundred pound, six six hundred and fifty pound, four ten hundred pound, and five twelve hundred pound engines. Also one Jordan, one Marshall and two Kingsland engines, and one eighty-eight inch, two eighty-six inch and two seventy-six inch Fourdriniers.

High-grade book, writing and coated lithograph papers are made to the amount of sixty-five thousand pounds in twenty-four hours. This company have made for many years the paper used by Harper & Brothers and other leading houses.

UNCAS PAPER CO.—This company was organized April 1, 1893. E. R. Thompson is president, and F. W. Browing, secretary, treasurer and general manager. The capital stock is \$50,000.

The works are located at Thamesville, in the city of Norwich, between the tracks of the New London Northern Railroad Company and the Thames river, with excellent transportation facilities both by rail and water.

The machine room is two hundred and twenty-five feet by seventy feet, and has one story; heater building, ninety-five feet by forty feet, three stories; stock-house, one hundred and four feet by sixty feet, one-story; engine-house, sixty feet by forty feet, one story; boiler-house, forty-five feet square, one-story, and wharf store-house, one hundred feet by sixty feet, one story.

The business began with one paper machine and twenty-five dryers, run by twenty-three hands, making ten tons of paper per day. Two machines with sixty-eight dryers are now run with fifty hands, making twenty-five to thirty tons of manilla board per day. The paper is used in making boxes, and goes all over the country and to England and Australia.

The buildings are protected by automatic sprinklers supplied by city water, and there is also a duplex Worthington fire-pump of seven hundred and fifty gallons per minute capacity. The power is furnished by two Corliss engines of two hundred and fifty and seventy-five horse-power respectively, and an Atlas engine of fifty horse-power supplied with steam from four boilers.

PAPER INDUSTRIES.—There are several industries in town that use paper in the manufacture of their goods.

NORWICH FOLDED PAPER CARPET LINING CO.—This company was organized in 1889, with Charles D. Browning as president, and Frank W. Browning as secretary and treasurer. The capital stock was originally \$10,000, but has been increased to \$30,000. The company began manufacturing in Fitchville, but moved to a three-story brick building one hundred feet by fifty feet at Thamesville in the city of Norwich five years ago. The location is convenient to the Central Vermont Railroad and docks on Thames river. The lining is made of manilla paper so folded and fastened as to be very elastic and durable. It is considered the best carpet lining in the market.

This company first hired the right to manufacture from the owners of the patents. When the capital stock was increased the company purchased the patents. Machines doing a large business both in Madison, Ia., and Belleville, Ontario, pay this company a royalty. The Norwich Company make about fifty rolls of lining per day which goes all over the country.

BIRLEY FOLDING BOX CO.—This company was organized in March, 1896, with a capital stock of \$30,000. The president is Frank H. Allen, and William P. Potter is treasurer and general manager, and George A. Perkins, secretary. The business is located at Thamesville over the works of the Folded Paper Carpet Lining Company.

The first boxes were turned out in June, and when the business is fairly started employment will be given to about fifty hands. The company own several special new machines and also several patented boxes. The boxes are shipped to the customers flat, thus saving a large part of the freight bill. The paper is easily and rapidly folded into a firm, strong box which looks much neater than the ordinary folding box. The company expect to find a market all over the country, as these boxes can be made cheaper and freighted with less expense than the ordinary kind. The company is a branch of a company doing business in Toronto.

SAMUEL E. BLIVEN.—Mr. Bliven has been engaged in the manufacture of paper boxes since 1884, when he opened a shop on lower Broadway. The boxes are made by hand and sold only to local firms. In 1894 the business was transferred to East Great Plain. The stock is almost entirely furnished him by the Uncas Paper Company.

FIRE ARMS.—The manufacture of fire arms has long been an important industry, and during the Civil War it was one of great magnitude.

THE HOPKINS & ALLEN MANUFACTURING CO.—This company was organized in 1868, with Horace A. Briggs president, and C. A. Converse secretary and treasurer. The original capital stock was \$6000.

Horace A. Briggs is still president. Charles W. Hopkins is now treasurer, and John E. Warner secretary and the present capital stock is \$225,000.

About twelve men were originally employed, using one floor of a small mill at the upper privilege at Norwich Falls. Since 1878 they have occupied a brick building of their own on Franklin, Willow and Chestnut streets, sixty feet by two hundred and twenty-eight feet, three stories high, with wings thirty feet by one hundred feet, and fifty feet by seventy feet three stories high, including basement, besides smaller wings and detached buildings. In 1878 they occupied half of one floor, furnishing room and power to other manufacturing concerns. Now they occupy the entire building, with the exception of about four hundred square feet, used by James McKee in making bicycle chains.

The company at first made the old Colt model revolver for powder and ball. Later they made metallic cartridge-pistols. They now make a large variety of pistols, from twenty-two to forty-four calibre, of all sizes and shapes. They have made many large army revolvers, and also make shot-guns and rifles.

In 1895 the company began the manufacture of bicycles in addition to their pistol business. The name of the wheel is the "Majestic."

Previous to the beginning of manufacturing bicycles about two hundred hands were employed in making annually about ninety thousand pistols, guns and rifles.

In 1896 about one hundred and seventy-five hands were employed in the fire-arms department and two hundred and twenty-five in the bicycle department. About fifteen hundred wheels per month were made during the season. The goods are handled by Hulbert Bros. & Co. of New York, who have a shipping office in the same building.

THE W. H. DAVENPORT FIRE-ARMS CO.—This company was organized in June, 1891, with a capital of \$12,000, which has since been increased to \$30,000. Its officers are: A. T. Otis, president; H. H. Gallup, treasurer; W. H. Davenport, superintendent; W. C. Davenport, secretary.

The company occupy the whole of the fourth floor, about seven thousand five hundred square feet of the Norwich Belt Company's building, which is located directly on the wharf, and has a side-track from the New England railroad. The annual pay-roll is about \$24,000. The company employs about sixty men, and make six styles of single guns and rifles.

The 1891 model Davenport rifle, and 1891 model Davenport gun, are both built on the popular detachable barrel system, first practically applied by Mr. Davenport. The 1894 model gun has not only the detachable barrel, but also an automatic ejector, and is the first instance of the application of the automatic ejector to this class of gun. The 1896 model Davenport gun combines the detachable barrel and automatic ejector, with other improvements.

The "Elita," 1896 model, has the detachable barrel and automatic ejector, but is of lighter weight, for use of ladies and young sportsmen, while the "Acme," 1896 model, has the detachable barrel and positive extractor, and supplies the needs of those who prefer a well-made gun at a lower price.

Everything except the screws are made in the works. Their six automatic barrel-drilling machines were the first of the kind operated in this country, and their

work is of the highest order. Goods are sold direct to the trade, and go all over this country, and many are exported to other countries.

THE CRESCENT FIRE-ARMS CO.—In 1858 Thos. K. Bacon began the manufacture of pistols, under the name of Bacon Arms Company. Soon after a joint stock company having the same name was formed, and during the Civil War the company did a large business in the manufacture of fire arms, at the corner of Franklin and Pond streets. In 1888 the company were employing twenty hands, making two thousand four hundred single-barrel guns yearly, paying for labor \$10,000 annually. In 1890 George W. Cilley purchased the tools, and assumed the contracts of the company.

Mr. F. A. Foster became associated with Mr. Cilley, and as Cilley & Foster they continued the business until February, 1892, when they were succeeded by the Crescent Fire-Arms Company, with a capital stock of \$27,900, and the third floor in the Industrial Building No. 1, began to be occupied for the increasing business. The officers are: H. H. Gallup, president; E. R. Thompson, treasurer; James C. Henderson, secretary; and F. A. Foster, superintendent.

The business of making bicycle chains has been added to that of gun-making. The number of men employed ordinarily is fifty-six, and the works have a capacity of fifteen thousand single guns, or one hundred and twenty thousand chains, and two thousand double-barrel guns annually. The annual pay-roll is about \$25,000. The chains are sold to the trade, and most of the guns are sold through H. & D. Folsom, New York.

BICYCLES AND BICYCLE CHAINS.—The enormous demand for bicycles in 1895 resulted in the establishment all over the country of plants for their manufacture. Small machine-shops grew into large bicycle manufactories almost in a night. Many machine-shops began to make parts of bicycles. The bicycle manufactory of the Hopkins & Allen Manufacturing Company has already been mentioned in connection with their fire-arms business.

The manufacture of bicycle chains has become a specialty in Norwich. In fact more firms are engaged in that business here than in any other place in this country. The work of the Crescent Fire Arms Company on chains has already been mentioned.

GEORGE W. CILLEY CO.—The largest bicycle works in the city was started by George W. Cilley in June, 1895. A floor and a half of the Norwich Belt Company's building is used. Chains, such as are used by all cycle-makers in this country and some foreign countries, are made. About six hundred chains are made daily. The weekly pay-roll is about \$650, and some sixty hands are employed. Special new machines have just been put in operation, which enable the best of work to be produced.

The company was incorporated November 3, 1896, with a capital stock of \$25,000. George W. Cilley is president and treasurer, and Frank E. Cilley, secretary. The chains are sold through Oliver, Strawn & Company, New York.

THAMES CHAIN AND STAMPING WORKS.—In 1895 the firm of Robertson and Pattison, machinists and engineers, took a contract for thirty thousand bicycle chains to be delivered in 1896, and immediately equipped a plant in the Bailey building, beginning shipments early in January of the present year. The firm name was changed to the Thames Chain and Stamping Works. F. W. Carey is manager and J. D. Robertson is superintendent. The chain made by this firm has had a ready sale among the makers of high-grade wheels, and each link has been stamped with the firm's trade-mark "Vulcan." Sixteen hands have been employed. About \$7,000 is invested in the enterprise.

JAMES MCKEE, BICYCLE CHAINS.—Mr. McKee has floor space and power in the Hopkins and Allen building in the manufacture of bicycle chains. About fifteen hands are employed.

IRON WORKS AND FOUNDRIES.—In Revolutionary times the iron works of Norwich were among the most important in the country, and for many years afterward their importance continued. More recently the great development of iron works nearer coal supplies have naturally decreased the magnitude of this industry here. In some branches, however, the business has constantly increased.

RICHMOND STOVE CO.—The capital stock of this company is \$150,000. John Mitchell is president, A. J. Hammett, secretary, and Werter C. Higgins, agent and treasurer. The works and office of the company are located on Thames street.

The company was organized in 1867, Apollos Richmond being its principal promoter. The works have a frontage of eight hundred feet on the Thames river, along which runs the Central Vermont railroad, thus giving excellent transportation facilities by land and water. The principal buildings are of brick, 68 feet by 130 feet, 63 feet by 110 feet, 35 feet by 90 feet, four stories high; foundry, 60 feet by 290 feet, one story, with other brick and wooden buildings.

This company were the first to make modern ranges for use in place of the old-fashioned cook-stoves, and Richmond ranges are known all over the world.

The company have been leaders in heating matters, and have extended their business to include hot-air furnaces, steam heaters and hot water heaters. The company make and ship about three thousand heaters annually. They make forty-nine different sizes, and thirty or thirty-five kinds. About one hundred and seventy-five workmen are employed, and over \$100,000 is annually paid for labor.

A. H. VAUGHN & SONS.—In the year 1854 Alfred H. Vaughn, James E. Hill and Peleg Rose formed a partnership under the name of THE NORWICH IRON FOUNDRY, and began business in a building forty feet square, located on the line of the Norwich and Worcester railroad, between Ferry street and Rose Place. This partnership was dissolved in 1861, and the business continued and increased by Mr. A. H. Vaughn. In 1878 Mr. Alfred N. H. Vaughn became a partner, and the firm-name became A. H. Vaughn & Son. The name was changed to A. H. Vaughn & Sons in 1880, when Charles W. Vaughn joined the firm. Mr. A. H. Vaughn died in 1886, since which date the surviving partners have continued the business under the same name.

The firm furnishes iron castings for architectural work, mill work and repairs, and general jobbing. They have all of Eastern Connecticut for a field. Their well-catalogued stock of patterns is the largest in Eastern Connecticut, if not in the state. About seventeen thousand square feet of ground is now covered by their buildings, several of which have been built by them with special reference to their needs. They now employ about forty hands; the yearly pay-roll is about \$25,000; and they use annually about one thousand tons of iron.

WM. H. PAGE BOILER CO.—The capital stock of this company is \$10,000. S. T. Dauchy is president; F. W. Dauchy, treasurer; Alexander Don, secretary; and Jno. T. Young, general manager. The works of this company are located at 282 to 296 Franklin street. The main building is a brick structure, forty feet by one hundred and ten feet, three stories high, with a basement. The company was formed in 1856, and incorporated in 1877. They formerly were engaged in the manufacture of wood-type, but, disposing of that business, gave their entire attention to the manufacture of boilers. In January, 1896, Wm. H. Page, the former treasurer of the company, sold out his stock to his New York partners.

The company now make a specialty of the manufacture of the "Volunteer" and "All Right" steam and hot-water heaters, invented by Mr. Page, the patents for which are owned by the company. Large sectional boilers, up to fifty horse-power, are also made for heating large buildings as well as boilers for power purposes.

All the work of making the boilers is done in the building, from the melting of the pig-iron to the finished product. Employment is given to from seventy-five to one hundred hands, quite a number of whom are skilled workmen. The trade extends throughout the entire country, the company having branch offices in New York, Pittsburg, Philadelphia and Chicago.

PAGE STEAM HEATING CO., WM. C. MOWRY, PROPRIETOR.—This company is engaged in the manufacture of steam and hot-water boilers for heating purposes. The "Page," a low-pressure steam heater, is made by this concern, and has earned, on account of its simple construction and durability, a wide reputation. Their hot-water heater is also known all over the country. The works are located at the foot of South Golden street, in the direct line of the Norwich and Worcester Railroad. The main building is of brick, two stories high. The business was started in 1878, and Col. W. C. Mowry, the present manager, has been connected with the industry from the beginning. Agencies have been established all over the country, and the boilers are found as far west as Utah and as far south as Tennessee.

THAMES IRON WORKS.—The capital stock of this company is \$20,000. John Mitchell is president; Albert G. Mitchell, secretary and treasurer, and Charles Mitchell, superintendent. This company was organized in 1861, when it built the present works, which consist of a brick building one hundred and eighty feet by ninety feet, two stories, and seventy feet by thirty-five feet, one story, with the necessary appurtenances. Bar and spike iron is produced to the amount of about three thousand tons annually. About forty-five hands are employed, who are paid about \$36,000 per annum.

GEORGE F. BARD.—In 1829 Pierce & Robertson established a brass foundry at the foot of Ferry street. This firm was succeeded in 1865 by George Pierce. In 1870 Mr. Bard became associated with Mr. Pierce under the firm-name of Pierce & Bard. Mr. Pierce retired from the firm in 1879.

The foundry building is 70 feet by 100 feet. Mr. Bard also in this connection occupies a three-story and basement building 33 feet by 40 feet in the plumbing and steam and gas-fitting business. Modern machinery run by steam power is used. Thread cutting is done on all sizes of pipes. The business includes heating by steam and hot water, and ventilating and all kinds of sheet-iron and tin work.

PEQUOT BRASS FOUNDRY (Robert Brown, Proprietor).—This foundry was established in 1883. Brass and Babbit metal are cast in all forms. Job work of all kinds in this line is done. In connection with the foundry Mr. Brown does a large business in plumbing and gas fitting, heating and ventilating. He has all the improved machinery for work in his line. His thread-cutting machine cuts threads on pipes from one-eighth of an inch to eight inches in diameter. The works are located on Central wharf, West Main street, and about twenty men are employed.

MACHINERY.—Exceedingly ingenious machinery for various special purposes is manufactured by well-known firms.

C. B. ROGERS & CO.—The capital stock is \$200,000. R. W. Perkins is president and treasurer, and F. J. Plummer, secretary. The office and works are on Thames street, near the centre of the city. The works were started on a small scale by C. B. Rogers in 1846. The present company was organized in 1863. The property has a large frontage on the Central Vermont railroad and Thames river. The build-

ings are of brick (45 feet by 130 feet, four stories ; 35 feet by 55 feet, three stories ; and 25 feet by 65 feet and 35 feet by 30 feet, one story). The company make all kinds of machinery for working wood, and their specialities are heavy planers and matchers with four or five heads, heavy inside-moulders with four or five heads, and heavy double-surfacers. Pony-planers, hand-planers, band-saws, saw-tables, outside-moulders and a great variety of wood-working machinery is sent to all parts of the world. About one hundred and twenty-five hands are employed, and about \$70,000 is annually paid for labor.

LESTER & WASLEY.—Daniel M. Lester and Frederick R. Wasley formed the above-named firm in March, 1874, and bought the tools and machinery of the Allen Manufacturing Company, who were building envelope machinery in the Osgood building on Broadway. The firm in 1879 began the manufacture of an improved machine, appropriately called the "Leader." Such is its superiority that while 30,000 envelopes was considered a good day's work on the machines formerly made, 67,000 envelopes have been gummed, folded and counted in one day on a "Leader" envelope-machine.

Machines for making all sizes and styles of envelopes are sent to Great Britain, France, Germany, South America and Mexico, as well as all parts of the United States. The firm also makes paper-box machines. They occupy the second-floor of the Industrial Building, No. 1, and employ a dozen skilled workmen to whom high wages are paid.

THE CRANSTON PRINTING PRESS CO.—The business was established by J. H. Cranston in 1876, and incorporated in 1891 as the Cranston Printing Press Company. Capital stock, \$50,000.

The factory is situated at Thamesville, on the line of the Central Vermont railroad, and near wharves on the Thames river.

The buildings are of brick ; one 50 feet by 100 feet, three-stories ; one 30 feet by 50 feet, two-stories, and carpenter shop 30 feet by 50 feet, two-stories.

Printing presses of all sizes and a high grade are made. Many special machines are used, and the parts of the presses are, as far as practicable, interchangeable, and all presses are set up and tested before they leave the works.

About sixty hands have usually been employed, with an average annual pay-roll of about \$36,000.

M. A. BARBER.—MACHINERY.—In 1887 Mr. Barber succeeded J. E. Barber & Co. in the business of making and repairing engines and other machinery that was established in 1857 by his father, John Eliot Barber, in the Ansel Clark Building on Water street. Later the business occupied two floors of the building at the corner of Ferry street and Railroad avenue.

In 1892 the business was moved to Industrial Building, No. 1, where four thousand square feet of floor space is occupied.

In the fall of 1895 Mr. Barber purchased a large part of the machinery of the Sibley Machine Company and added their business of making paper-mill machinery, gear cutting, etc., to his own, making a first-class equipment for general machine business.

The principal business is the manufacture of power transmission machinery and the building, repair and care of steam plants.

One of the special features is the manufacture of cork-cutting machinery, which had its origin in Norwich. Mr. Barber gives especial attention to designing special machinery.

CHELSEA FILE WORKS.—This industry was established in 1861 by a stock

company with the above name. Mr. Henry L. Butts, the present proprietor, has always been connected with the works, and was a member of the stock company at its start. The firm employ twenty-five hands, and while they do not boast about the number of files turned out, they claim the quality is inferior to none. Every file that leaves their shop is hand-made, and thus superior to machine-made files. Their horse rasps, of which they make a specialty, are known to the trade throughout the country.

The establishment has always been located in the rear of Franklin Square, but at present, owing to increased business, the works are being moved to a new building erected on the Yantic River above the Falls Mills. The power which is used for forging and grinding will now be obtained from water instead of steam. The wheels are rated at about forty-five horse power. In the new location the capacity of the plant will be nearly doubled, although the files will be still made by hand.

NEWTON BROTHERS.—This firm have had a machine shop on Boswell avenue for many years. They make a specialty of a saw-gummer for sharpening the saw teeth used in cotton-gins. They also do a general jobbing business.

AUGUSTUS GOULD.—In 1892, after being in the employ of C. B. Rogers & Co. for thirty-eight years, Mr. Gould established a machine-shop in the Industrial Building No. 1, where he makes machinery models and nickel-plated window display frames, and does a general jobbing business.

COLLINS TURBINE MACHINE CO., 184 to 192 Thames street.—The manufacture of water-wheels was commenced in Norwich by J. P. Collins in the Union Machine Company's building in 1868. The business was located in Thamesville from 1870 to 1873, and from there was removed to the present plant, which was built for it in 1874.

Previous to coming to this city, an extensive business was carried on in Troy, N. Y., beginning there in 1854. Being an expert, practical mechanic, Mr. Collins made many important improvements in water-wheels as well as in other lines, among his best-known inventions being the compression coupling, manufactured by the American Iron Works, of Pittsburg, Pa., which is in use in the Norwich Industrial Building and many mills in this vicinity.

Since 1892 the business has been carried on by his son, William W. Collins. This company makes a specialty of water-wheels, water-wheel governors, tapping-machines, slotting-bars and heavy transmission machinery; doing also a general machine business. Their plant is admirably located and well-equipped to handle heavy work advantageously, having excellent shipping facilities both by water and rail.

SCHOLFIELD GEAR AND PULLEY CO.—This company was incorporated in 1895, and its office and works are in the Collins building on Thames street. The capital stock is \$8,000. J. B. Shannon is president, Charles B. Lee, treasurer, and W. W. Collins, superintendent. The company manufacture an improved gear and pulley, of which J. J. Scholfield is the patentee. Some seventeen different kinds of improved gears for cotton machinery are made.

LEATHER.—In many places in Norwich excavations for public improvements unearth the vats of the early tanneries. Now the business is concentrated in two large concerns.

THE NORWICH BELT MANUFACTURING CO.—In 1845 C. N. Farnum began the manufacture of leather in Norwich under the above name. His tannery was located at the corner of Talman and Hinckley streets, and he built and occupied the building which bears his name on Water street. At his death, in 1873, the business was

purchased by Henry H. Gallup, Frank Ulmer, and Geo. S. Smith, and in 1876 a new and larger tannery was built near Greeneville. Geo. S. Smith retired from the firm in 1883, and Frank Ulmer in 1892.

Since the latter date the business has been continued by Mr. Gallup alone. The tannery was entirely destroyed by fire in 1885, and a new one erected on the same site. The new tannery has been enlarged six times since it was built, and now consists of a main building 42 feet by 253 feet, containing two stories and basement and one-story additions, having an area of ten thousand square feet, making a total floor space of forty thousand square feet.

The Farnum Building was occupied for offices, warerooms and belt factory until 1890, when the substantial brick building, known as the Elevator Building, was purchased, of which the company occupies three floors, together with three floors of the adjoining building, twenty feet by fifty feet, and an additional room, twenty-five feet by fifty-three feet, making a total of twenty-seven thousand square feet. The ware-rooms and belt factory are directly on the wharf, and both warerooms and tannery are connected with the Norwich and Worcester railroad by side-tracks.

About one hundred hands are employed and about forty thousand hides are made into belting, lace and valve leather annually. A specialty is made of dynamo and other high-speed belting. A great variety of straps for mills, reaping machines, pads, blankets, trunks, etc., are manufactured. This department alone consumes one hundred and fifty to two hundred tons of leather each year.

This company has a branch house in Chicago, and offices and depots for supplies in New York, Philadelphia, Boston, Baltimore, St. Louis, Providence, Kansas City, and other points, and sell goods in nearly every state in the Union, while considerable quantities are exported to the Canadian provinces and other countries.

ULMER LEATHER CO.—Frank Ulmer and Henry F. Ulmer began the manufacture of leather in 1894 under the above name. Both men have had practical experience for a great number of years. The works of the Ulmer Leather Company are situated at the head of Forest street, on the line of the New London Northern railroad, and the buildings were built especially for the purpose in 1894. They consist of a main building, one hundred and twenty-five feet by forty-two feet, three stories high, and an extension fifty feet by forty-two feet one story, boiler house, thirty feet by forty-two feet, tower, storehouse, etc. The boiler is of sixty-five horse-power and the engine forty horse-power.

The firm manufacture belting and strapping and are about to begin on lace-leather. They employ about thirty men, and their pay-roll is about \$15,000 annually. They have all the latest and best machinery for the work.

The buildings are protected from fire by outside hydrants and automatic sprinklers supplied by city water. Spring water for manufacturing purposes comes by gravity from a reservoir built by the company on their own land. An artesian well under the boiler-house, with steam pump and large tank on the hill, can, whenever occasion requires, take the place of either or both of above supplies.

WOOD-WORKERS.—Good shipping facilities and improved machinery enable Norwich to supply manufactured lumber to a large territory.

H. B. PORTER & SON.—Mr. H. B. Porter began the business of manufacturing doors, sash and blinds and builders' finish on Vergason street in 1882 in a small shop, employing five hands. In 1888 the site of the business was changed to the corner of Lafayette and Oneco streets, where buildings were erected especially adapted to the purpose. From 1889 to 1892 Mr. W. A. Heath was a partner, and the firm was known as Porter & Heath. At the latter date Mr. Nelson V. Porter succeeded Mr. Heath, and the present firm-name was adopted.

The buildings now occupied are the main building (70 feet by 115 feet, two stories high), a glazing-room (16 feet by 45 feet, two stories high), and lumber-sheds (20 feet by 40 feet, two stories high, and 16 feet by 40 feet, one story). About one million feet of lumber annually is handled by about thirty hands, and the pay-roll is about \$17,000 per annum. Power is furnished by an improved new Greene engine of one hundred horse-power. The buildings are lighted by seventy-five incandescent lights, furnished with electricity generated by a dynamo in the main building. Exhaust fans take shavings and sawdust from every machine direct to the fuel-room, not only saving labor, but making the shop free from dust and giving perfect ventilation. The buildings are thoroughly protected by a system of automatic sprinklers, furnished with city water. The combination of electric-lighting, shavings and dust exhaust and automatic sprinklers make the fire hazard so slight that insurance costs about one-quarter of that paid by similar concerns not having these appliances.

The firm send work as far as Hartford on the west, Willimantic on the north, Providence on the east and New London on the south. They make a specialty of fine hardwood finish mantels and cabinet work. Their Sander machine puts a finish on any thickness of wood up to six inches, better and more rapidly than could be done by forty men.

H. F. & A. J. DAWLEY.—This firm has been engaged in the manufacture of lumber since 1889 and have now an established trade and well-equipped plant. The plant is located on the Thames river at Fort Point, about three miles below Norwich and on the Allyns Point extension of the Norwich and Worcester Road. A one-hundred horse-power engine furnishes the power necessary to do the business. The timber is received direct from the south by water and converted into wood for inside finish, such as flooring, ceiling, moulding, etc. Heavy building timbers are also kept on hand. The principal trade is in cypress, North Carolina pine and yellow pine, although other material is dealt in.

Employment is furnished to from twenty-five to forty men. With the railroad and Thames river, transportation facilities are the best. An office is located in Norwich, where a large stock is also kept for the trade. They have a wholesale trade all over the New England states.

GRANITE AND MARBLE WORKS.—Norwich is unfortunate in not having good granite within its limits. A good deal of granite and marble is brought here and worked.

P. R. CONDON'S steam works are located at 110 Broadway, and about fifteen men are employed.

LEVI W. CROUCH is located on Crouch avenue, Laurel Hill, and has a branch office at 2 Weybosset street, Providence.

P. J. HARRINGTON is located on Chestnut street.

C. A. KEUBLER'S steam works are located at 39 and 41 Franklin street, and about fifteen men are employed.

W. A. THURSTON is located at Town street, Norwich Town.

MISCELLANEOUS.—Those industries of which there is but one representative of a kind are none the less important. In fact some of them are of more than ordinary interest.

NORWICH NICKEL AND BRASS WORKS.—Gen. W. A. Aiken, proprietor. In 1878 General Aiken purchased the electro-plating business of T. W. Albro, located in the building of the Hopkins & Allen Manufacturing Company, whose entire product of revolvers, with that of four other pistol factories, has been for a number of years nickel-plated there. From 1878 till 1885 it was known as the "Norwich

Nickel Works." In 1885 he began the manufacture of display fixtures for store windows and interiors, and in 1888 the present style was adopted.

As the business increased, more space and help have been used, but he remained in the same building until early in 1896, when the business was moved into the Norwich Industrial Building No. 2, where above sixteen thousand square feet of floor space is utilized. About sixty hands are employed, and the annual pay-roll is approximately \$35,000. Electro-plating in nickel, silver and gold on all metals is still a part of the business. More than one thousand revolvers per day have been plated at the works, on an average, through the year, for local manufacturers.

Great numbers of bicycles, stove trimmings and so forth, are plated for local and other parties. The plating tanks are, in some cases, twenty feet long. The principal business, however, is the manufacture of nickel-plated brass, store display fixtures. The frames, stands, etc., are used to display goods in show windows, and on counters, shelves and cornices in dry goods, millinery, boot and shoe, drug and other stores, and especially in the large department stores.

More than twenty-one thousand five hundred orders for these fixtures have been booked at the works. Not less than one hundred and fifty different kinds of appliances for the display of goods are made and new patterns are constantly being designed and used. Several of these devices are made under patents owned by the proprietor. When it is remembered that some of the frames have a hundred parts, one gets some idea of the extent of the detail involved. The rooms used are light and airy, and the best adapted for the purpose of any used in the country.

The goods go all over the world, including Canada, the West Indies, South America, England, Scotland, Germany, Australia, New Zealand and the Sandwich Islands, and every state and territory in the Union.

The New York office is in the new Mercantile Library Building, Clinton Hall, No. 19 Astor place, and No. 142 Eighth street, just east of Broadway.

NORWICH CUTLERY COMPANY — William H. Watrous, Proprietor. — The works are situated at Thamesville, between the Central Vermont Railroad and the Thames river, giving unexcelled transportation facilities. The main building is sixty feet by one hundred and ninety-eight feet, machine-shop fifty feet by fifty feet, and forge-shop eighty feet by one hundred and twenty feet. These are one story. The stock-house is fifty feet by one hundred feet, two stories. Steel blanks are made for knives, forks, carvers and other table cutlery, all of which are purchased and finished by the William Rogers Manufacturing Company, of Hartford.

Mr. Watrous is a nephew of the William Rogers who, in 1846, with his brother, Asa H. Rogers, first succeeded in electroplating. The daily production of blanks is about four hundred dozen. About one hundred hands are employed and about \$60,000 is paid annually for labor.

RICHARD F. GOODWIN, CORK MANUFACTURER. — The first machinery for cutting corks having been invented and manufactured in Norwich by Mr. Goodwin's predecessors, the industry deserves more than passing notice. In the year 1853 John D. Crocker, the artist, while calling at the drug store of S. B. Bulkely, on Main street, Norwich, had his attention called to the subject of cutting corks, by a remark made by the doctor, which was this: "I wish some one had wit enough to make a round cork." The cause of the doctor's remark was the soiling of clothes and goods while shaking a vial of medicine (which is a custom with druggists to test the fitting of corks). Mr. Crocker remarked that "if they were cut by machines they must be round." The doctor said that was the trouble—that they could not be cut by machinery, that fortunes had been spent to accomplish it, but to no purpose.

After thinking the matter over Mr. Crocker went to the blacksmith shop of C. B. Rogers & Co., and had Mr. Breed forge him a cylinder cutter with a shank like a bit and had it turned and sharpened in the shop. The tool was then fitted into a lathe borrowed for the purpose and used in a rear room of his brother's shop on Union street. From this rude cutter some sample corks were made, which when shown gave great satisfaction to consumers of corks. N. C. Breckenridge, a dealer in essences and cigars having a store then in the Wauregan corner, gave him an order for all he could make. A piece of wood was found at Lee & Osgood's, and thus the first order was filled of nine gross of vial corks. After Mr. Crocker had perfected a working machine with lathe stand complete made at the works of C. B. Rogers & Co., by Byron Boardman (then in the employ of that firm), Mr. J. D. Crocker went back to his studio, leaving the business in the hands of his brother, William R. Crocker, to conduct. A patent on a machine for tapering corks was taken out Oct. 30, 1855.

William R. Crocker started business first in a room with power leased of Rose & Hill in Rose Alley. His brother's first partner was Henry Baldwin; afterwards Mr. John Barnes of Norwich bought him out. Then a Mr. Carpenter of Colchester bought an interest. Afterwards Mr. Charles Spalding of Norwich took his interest, which was continued for three years by Wm. R. Crocker, John Barnes and Charles Spalding under the name of W. R. Crocker & Co.

From the start this enterprise was a success. A machine would cut from twenty to thirty corks per minute, of superior quality, displacing almost entirely the use of hand-made corks.

In 1859 Mr. William R. Crocker, with a younger brother, Jared F. Crocker, went to England and Scotland to establish the business there under royalty, and met with good success. But on their return to America they were both drowned by the wrecking of the steamer "Hungarian" off Cape Sable. After the death of William R. Crocker the firm's name was changed to Spalding & Barnes. In consequence of a disagreement with the William R. Crocker estate, Mr. John D. Crocker, to bring about a settlement, invented a new machine by which corks were cut direct from blocks, straight or tapered, as desired.

With this new machine, patented by J. D. Crocker, was started another cork business on Water street, Norwich, under the firm-name of Crocker & Adams, Mr. J. Hunt Adams buying a part interest. After running for a year Mr. Crocker sold out to J. H. Adams, who soon after sold out to Amasa C. Hall. In 1867 Messrs. Richard Goodwin and Guilford Parker purchased all of the interests of Mr. Hall and conducted the business until the death of Mr. Goodwin in 1880, when R. F. Goodwin took his father's interest and the firm continued under the same name until 1884.

At that time Mr. R. F. Goodwin bought out his partner, and has since been conducting the business. The present quarters, consisting of a large wooden building of two stories and basement, have been occupied for nine years. Employment is given to seventy-five hands. The big sheets of cork are sorted as to quality and thickness, then put into a steam-chest to soften, after which they are cut straight or tapering as desired.

A specialty is made of sliced corks, cork-washers, and screw-cap corks, and special new machines are used for this purpose. The waste is all used in various ways. The machinery, a part of which is the same as that invented by Mr. Crocker with a few improvements, produces corks of all sizes and shapes from one-eighth of an inch to six inches in diameter. These find a market principally in the middle and eastern states, although a scattering trade is maintained throughout the west. About

five hundred thousand gross of corks are made annually, requiring about two thousand five hundred bundles of raw material.

C. H. DAVIS & CO.—The firm consists of Charles H. Davis and David T. Ruby. The works of this company are situated in Greeneville on the line of the New England Railroad, with which they are connected by a spur track. About sixteen thousand hogs are slaughtered and packed annually, the product being sent all over New England. About eighteen men are employed, and about \$10,000 is annually paid for labor.

JEWETT CITY.—This borough is situated at the junction of the Quinebaug and Pachaug rivers, on the Norwich and Worcester division of the New England railroad. It is about nine miles from Norwich, but was formerly within the limits of the town of Norwich. Its mills are so largely owned by Norwich people, and the business relations of the two places are so intimate, that it is included with Norwich in this industrial history.

WILLIAM A. SLATER.—**JEWETT CITY COTTON MILLS.**—These mills are of especial interest, not only on account of their present magnitude, but more particularly on account of the fact that for seventy years they have been owned by Samuel Slater, the well-known pioneer cotton-spinner, and his brother John, and the lineal descendants of the latter. Previous to 1771, Eleazer Jewett owned a large part of the land included in the borough of Jewett City, and he built grist, saw and fulling-mills. John Wilson came to learn the fulling business of Jewett, married his daughter, purchased the fulling-mill and the greater part of the land. These mills were all located on the Pachaug river near the railroad bridge. In 1783 Samuel Smith had a grist-mill near the site of the new school-house, which he conveyed to John Wilson at that time, and Wilson in 1799 conveyed it to Rose & Park, who erected an oil-mill. In 1811 John Wilson conveyed to the Jewett City Cotton Manufacturing Company a privilege situated between Jewett's mills and Rose's oil-mill, being substantially at Slater's upper dam.

The Slater mills occupy the sites of the grist and saw-mills of Eleazer Jewett, the fulling-mill of John Wilson, the oil-mill of Elisha Rose, and the early mill of the Jewett City Cotton Manufacturing Company. The village, which was formerly in the town of Norwich, but is now included within the town of Griswold, was named Jewett City in honor of the first mill-owner.

In 1824 Samuel and John Slater began to make purchases here, and in 1826 started a cotton-mill with ninety looms. The mills, with additional land and water rights purchased from time to time, remained in the ownership of Samuel and John Slater until 1831, when Samuel conveyed his interest to John, who owned the property until his death in 1843, when it passed to his sons, John F. and William S. In 1872 William S. Slater conveyed his interest to John F. Slater. On the death of John F. Slater in 1884, the mills became the property of the present owner, William A. Slater. Continued enlargements of land, buildings and water-power have been made during the several ownerships.

No mention of the mills would be complete without stating that Mr. Alfred A. Young became connected with the mills in 1839 as bookkeeper, paymaster and manager of the mill store, and later was agent of the mill until 1891, when he was succeeded by his son, Alfred A. Young, Jr., who was agent until 1896. John M. Kimball, of Providence, is the present agent, and O. H. Sampson & Co., of Boston and New York, are the selling agents, and H. W. Kimball, superintendent.

The principal mill is six hundred and fifteen feet by fifty-eight and one-half feet,

three stories high, with wings and detached buildings covering with the main mill in the aggregate about one hundred thousand square feet. The power is furnished by falls of twenty-one and sixteen feet at two dams on the Pachaug river, acting on three water-wheels aggregating five hundred and fifty horse-power, and supplemented at times by steam. The mills are well protected from fire by five yard hydrants connected with the public water-supply, which here has a pressure of one hundred and thirty pounds to the inch, as well as a large steam pump and automatic sprinklers. One hundred and forty-one tenements are owned in connection with the mills. The mills have eighteen thousand nine hundred and sixty-eight spindles and seven hundred looms. About seven million five hundred thousand yards of finished chevots, flannels and dress goods are made annually. About five hundred and fifty hands are employed, and about \$150,000 is annually paid for labor.

ASHLAND COTTON CO.—In 1807 John Wilson sold his woolen mill to John Scholfield, and as Wilson had a fulling mill on the present Slater land his deed was on condition that Scholfield should not finish any cloth except that which he wove. Nine years later Scholfield had a woolen factory on the north bank of the river and a cotton factory on the south bank. About 1820 the property was conveyed to Trumbull & Breed, of Norwich. After being owned by the Griswold Manufacturing Co., Christopher Lippitt and Morgan & Fanning in turn, it was conveyed in 1845 to Adams, Anthony & Tucker. In 1863 the remaining mill and privilege were conveyed to the Ashland Cotton Company. The privilege is within the original limits of Norwich, but it is now included in the borough of Jewett city and town of Griswold. Mr. Moses Pierce has been president of the company from its organization. The first agent and treasurer was N. T. Adams, succeeded severally by S. W. Mowry, R. T. Budlong, and J. S. Carew. The present agent and treasurer is James O. Sweet, and the present capital stock is \$400,000. The mill purchased is 40 feet by 90 feet, four and one-half stories high, with wing 35 feet by 40 feet.

In 1864 the company built a new mill (70 feet by 180 feet), five stories high. In 1881 a two-story extension (110 feet by 70 feet) was built, which, with previous extensions, makes the main mill now 320 feet by 70 feet. The new and old mills are connected by an iron-covered bridge. There are eight boilers in a house (80 feet by 60 feet), with coal-shed (50 feet by 40 feet) and steam-engine in a brick building (20 feet by 40 feet). The power is furnished through four pairs of horizontal wheels by a fall of 20 feet in the Pachaug river. The dam is substantially built with a roll-way of 110 feet. The permanency of the water-power is much increased by the use of a storage reservoir of 1,000 acres, which can be drawn about nine feet and a half. This reservoir was built by the company for its own use. The company own the Hopeville privilege, the next above on the Pachaug, which they now use for storage only. The power is supplemented by steam-power from two engines.

Twenty-five thousand spindles and seven hundred looms are used in making sateens, fine cambrics, umbrella cloths, fine three-leaf twills, from ten to fifteen styles of goods, which are sold direct to converters and jobbers. The company employs about three hundred hands. The annual pay-roll is about \$100,000, and the total annual value of product is about \$250,000. The buildings are protected by automatic sprinklers and yard hydrants furnished by public water-supply with large pressure and rotary force-pumps.

A. B. BURLERSON & CO.—This company twist and spool fine cotton yarns, also furnish insulating yarns for electrical purposes, employing about twenty hands. They occupy a new steam mill at Jewett City, built in 1894 after the destruction by fire of their mill at Clayville, near Jewett City, where this business had been carried on by them for eighteen years.

FINISHING WORKS.—Among the largest and most important industries in Norwich and vicinity are those engaged in bleaching, dyeing, calendering, printing and otherwise finishing cotton cloth. Many ingenious machines, devices and processes are used to change the comparatively rough gray cloth as it comes from the loom into soft, smooth fabric of every hue rivaling silks and satins in beauty of color and finish.

THE ASPINOOK COMPANY.—This company was organized May 27, 1893, by the election of Moses Pierce, William A. Slater, John M. Johnson, O. L. Johnson, Jr., Edward Harland and Charles P. Cogswell, of Norwich, and L. H. Cunliff, of New York, as directors, by whom Moses Pierce was elected president, Edward Harland vice-president, and O. L. Johnson, Jr., secretary and treasurer, all of whom still hold the same offices.

The works and office are within the original limits of the town of Norwich, at the borough of Jewett City, in the present town of Griswold. The original capital was \$350,000, which has been increased to \$500,000.

The buildings were practically completed in March, 1894, except an extension of the print building, which was completed in 1895. The buildings are the main mill, 340 feet by 63 feet, three stories; print building, 288 feet by 63 feet, three stories; annex, 389 feet by 45 feet, one story, used for wash and can room; bleach-house, gray room and singe room, 247 feet by 83 feet, one story; dye-house, 146 feet by 83 feet, one story; beetle room, 81 feet by 63 feet, one story; repair shop, 147 feet by 52 feet, two stories; and blacksmith shop, 34 feet by 24 feet, one story. All these are built of brick.

There are six boilers with a capacity of 750 horse-power, in a wooden building, 75 feet by 39 feet, one story high, with a steel chimney 100 feet high, 6 feet in clear lined 50 feet up with four and one-half inch fire brick.

There are six printing machines now in operation, and room for more. The greater portion of the works is run by water with three pairs of horizontal wheels, with total capacity of 1260 horse-power.

Water-power is created by a timber dam, built by this company, across the Quinebaug River, having a rollway 481 feet long (also 100 feet rollway in canal), built on and anchored to solid ledge throughout, giving a fall of about 23 feet.

The water enters the canal through five head-gates, each 10 feet square. There are five waste-gates of the same size from the canal.

The buildings are wired for 1000 incandescent, and for arc lights as may be needed. Electricity is generated by water-power within the main building.

A variety of fabrics are bleached, printed, dyed fast black and other colors, and finished for converters and others. Capacity about 3000 pieces per day. There are about 325 employees, including office force.

Water for bleaching, etc., is brought by gravity from the canal in a thirty-inch steel pipe lined with cement. The buildings are protected by automatic sprinklers and outside yard hydrants furnished by water from the public supply through eight inch pipes, giving a pressure when hydrants are not in use of 135 pounds per square inch, and 65 pounds when all the hydrants are open. Further protection is given by both rotary and steam pumps.

CHAPTER XCII.

NEW LONDON.



THE city of New London is one of the most interesting in all New England. It is a quaint, picturesque, old city, lying on the banks of the American Thames, and facing the great waterway of commerce. From the beginning, New London was prominent in the affairs of the colony. It furnished the most notable of the early governors; it was the principal shipping-port and chief postal station in Connecticut; its commerce was second only to that of Boston and New York, but it suffered considerably from the Revolution, the embargo of 1807, and the War of 1812. Its population was twice decimated—by the Revolution and by the terrible yellow fever epidemic of 1798. The city is the most interesting in all New England, because of its age and history, and in enterprise and culture it is second to none. Historians have often spoken of the high character of the city's founders—men of such energy and mould that their influence has been transmitted down through the three centuries, and is felt in the social life of to-day.

The town was founded by John Winthrop, the younger son of John Winthrop, who was governor of Massachusetts colony. He had acquired Fisher's Island a few years before, and while holding official position at Saybrook his eyes had rested with longing on fair Pequot, the section where now is New London. In 1645, with Mrs. Margaret Lake, his sister-in-law, the first white woman to tread New London soil, and one Thomas Peters, he set to work to form a settlement. He was soon followed by other patriots, and before long a town government was established. To Winthrop alone is credited the projecting of the undertaking, laying out the site and organizing the municipal government. He conciliated the Indians and determined the bounds of plantations. He was the chief magistrate from 1657 to 1676.

Historic New London has many dwellings far antedating the Revolution, of which a few might be mentioned here with propriety. No. 51 Main street, the tavern of the Red Lion, was kept by Capt. Nathaniel Coit, in 1756, when General Washington, with five companions, spent two nights there; the Burbeck house with its historic elms, home of three children of a Revolutionary soldier; the old Episcopal parsonage; the old Saltonstall house and the old Dodge tavern; the old Hallam house, built in 1714, whose door was shot through by British bullets; the Shaw manor, the home of Lucretia Shaw and her patriot husband, where Washington and Lafayette were guests, and Trumbull, Huntington and Griswold often met; the Hempstead house, built in 1678, and fortified against the Indians, and noted for its story of "pretty Patty Hempstead;" the vinegar house, so called because its owner, after wining and dining Benedict Arnold, September 6, 1781, perceiving his neighbor's house in flames, rushed to his outhouse and sacrificed his vats of vinegar to save a neighbor's roof; the Nathan Hale school, and many others, of which lack of space alone forbids mention. In addition to these, however, are a few of the more im-

portant points of interest. Buttonwood corner, so-called, is an old landmark which deserves more than a passing notice, not only because it was one of the few houses that were allowed to remain when the town was burned, in 1781, but there is much of intrinsic value connected with its history. A family of British occupied the house, who were friends of the "traitor Arnold," who stood on the tomb of Jonathan Brooks, located on the highest point in the old burying-ground, where he directed and watched the burning of the town, September 6, 1781, and, when the city was nearly in ashes, made his escape to Norwich and thence to Canada. It has been the birth-place of many distinguished people, and some of the most prominent lawyers in the state have had offices in the building. The tree which stands out in such bold relief on the corner has been christened the "charter-oak of New London." The old burying-ground, on what is called "Meeting-house Hill," is also worthy of mention. Here are buried scores of the early patriots. The oldest stone in the yard, and probably the oldest inscribed tombstone in the state, is that which covers the grave of Captain Richard Lord, erected in 1662, and another at the tomb of Hon. Gurdon Saltonstall, one of the early governors of Connecticut, who died in 1724.

The present fortifications of Fort Griswold are situated at the base of the earth-works of the Fort Griswold of revolutionary fame, on the crest of the hill known as Groton bank, which gives a commanding view of New London harbor and the surrounding country for many miles in any direction. The Groton monument, another imposing and historical structure, is worthy of brief mention. In 1826, a number of Groton gentlemen, feeling that the heroic defence of Fort Griswold, in the massacre of 1781, by Colonel Ledyard and his brave supporters, needed a more fitting memorial, organized, obtained a charter, and had a lottery in aid of the work legalized by special act. The corner-stone was laid September 6, 1826, the anniversary of the massacre, and September 6, 1830, the monument was dedicated with fitting ceremonies. The monument is built of granite quarried in the neighborhood; it is 26 feet square at the base, and 11 feet square at the top; the whole height from the sea level is 265 feet. A small stone house at the base is used as the keeper's lodge, and is also the headquarters of the Daughters of the American Revolution at Groton, who have on exhibition there many curious relics of Revolutionary times.

The Old Town grist mill, built in 1850 and still in use, is one of the great attractions to every visitor to this historic town. The mill was authorized by the town, and operated by John Winthrop, who afterwards became governor of the state.

The old court house, built in 1784, remains to-day practically the same, both in outward appearance and interior arrangement, as when first constructed. Within its walls have been enacted many noteworthy scenes. The people of New London cherish the old structure, and to-day would not exchange it for the best edifice that could be produced.

Fort Trumbull, with its grim and imposing walls, is one of the older fortifications on the Atlantic coast, and is a fine example of the engineering skill, as applied to fortifications, of a bygone day. When it was rebuilt more than fifty years ago, it was considered practically invincible with the armament of those days. It is now garrisoned by a battery of United States artillery. In 1775, as in 1865, New London contributed more than its quota to the cause of freedom. The Independent Militia of New London took part in the battle of Bunker Hill, and the first man in the United States to turn King George's bunting upside down was Captain William Coit, of New London. The first naval expedition of the Continental Congress left New London, January, 1776, under Esek Hopkins. Captain Rogers, a New Londoner, sailed the first steamship, the "Savannah," across the Atlantic in 1819, and New London was one of the first cities to receive a charter, which was granted in 1784.

New London possesses one of the best harbors on the Atlantic seaboard, situated as it is at the mouth of the broad Thames, and directly open to Long Island Sound. It has no intricate channel nor extensive shoals to obstruct passage. It presents to view an open port, inviting every sail by the facility of entrance and security of anchorage. In the lowest spring tides there is twenty-five feet of water, and this depth continues several miles up the river. New London harbor is the key to Long Island Sound, and promises in the near future to become one of the most important naval stations on the coast. On its copious bosom a large fleet may find anchorage, and no port is more advantageously situated for the reception of a squadron of war vessels. The harbor has been the home port, in years gone by, of scores of whaling ships, which were fitted out to pursue the whale fishery, then the principal industry of New London, but now extinct, owing to the extreme scarcity of the whale.

The manufacturing interests of New London, although, perhaps, a little behind her sister cities throughout the state, are varied and important. An active board of trade is always on the alert to point out the admirable facilities of location, water, sewerage, education, perfect fire-alarm system, electric power, lights, transit, shipbuilding, social and benevolent organizations, to any outside enterprise desiring a fine and progressive place for its location. It was largely through them that Munsey, the great magazine publisher, was induced to remove his plant to New London; and, for the purpose of carrying on his business in an enlarged form, he secured a favorable site on State street, corner of Meridian street, directly in the heart of the city, and erected a mammoth steel and vitrified brick structure nearly one hundred feet square and eight stories in height. To this he has added an annex in the rear, which is a large factory plant of itself. Here a large force of hands, of both sexes, are employed.

THE BROWN COTTON GIN COMPANY, established in 1846 and incorporated in 1865, with a capital of \$20,000, is one of the pioneer manufacturing industries of New London. The main office and factory are located on Pequot avenue, adjacent to the tracks of the New York, New Haven and Hartford railroad, rendering the concern ample facilities for receiving and shipping freight. This is the only cotton gin manufactory in Connecticut, and one of the most important, and probably the largest in this country. The business was started in a modest way, and has been prosperous since its inception. The plant is quite an extensive one, and gives employment to about three hundred hands. The gins manufactured here are very popular, and are used by planters all through the cotton belt of this country, and quite an export trade is done with ports in the other cotton-producing countries of the world. In addition to gins, they are large producers of linters for oil mills. They also do general machine work, iron castings, pattern work, gear cutting, and forging, and in fact every class of work in iron or wood. They keep constantly on hand a variety of patterns for pulleys, hangers, stove grates, grate bars, from which they are prepared to furnish castings promptly and at low rates. Mr. Israel F. Brown, president of the company, is one of the oldest and best known manufacturers in the state, if not in New England. By his inventive skill, industry, and superior executive ability, he has brought this enterprise to its present standing. Mr. Edward T. Brown, secretary and treasurer of the company, is also a man of more than ordinary executive and business ability. Both gentlemen are well and favorably known in financial and business circles. The New York office of this concern is at 74 Cortland street.

THE MORGAN IRON WORKS, ship and engine builders, boiler-makers, brass and iron-founders, is the largest establishment in this line in Connecticut, and is a very

important enterprise to New London. The concern was incorporated in 1893, under the above caption, with a capital of \$50,000. The office and factory plant is located at Fort Neck, where about two hundred hands are employed. The concern manufacture boilers of nearly every description, and the quality and durability of these products have given them a high and well-merited reputation all over New England. They do all kinds of brass and iron-founding and mill work, and produce a great variety of machinists' and engineers' supplies, patent composition roller-bushings, hoisting-engines, tanks and sheet-iron work. They make a specialty of steam marine-railways, and operate one at their plant for hauling and repairing sailing or steam vessels. They do a large business in the building and repairing of steamboat boilers of all kinds, whether it be in a small yacht or tug, or a large ship. Their facilities for docking are complete, and they always keep a large force of machinists and other mechanics on hand for the quick despatch of work on vessels in need of repairs. Their plant, on the whole, is large, commodious and fully equipped for the successful prosecution of their work with promptness. The company have a reputation second to none for thorough work, excellence of material and promptness in filling orders entrusted to them. The present officers of the company are: President, Ricardo R. Morgan; secretary, Henry H. Morgan.

THE BRAINERD & ARMSTRONG SILK CO., manufacturers of sewing-silk, is the pride of New London in the line of its factory enterprises. The plant of this concern is located on Union street, corner Church, and is a large and commodious structure, where some two hundred operatives are employed. It is one of the best appointed silk factories in this country, if not in the world, and its products have a national reputation, to say the least, as they may be found in the stores and private houses in every community. The specialties of the firm are sewing-silk, machine-twist, knitting-silk, flosses and embroidery-silk in all colors. The fast colors, texture and smoothness of their goods make them popular with the consumers. They also have a special mode of putting up some of their brands of silk in holders, which is invaluable to users of filo and floss silks from the fact that there are no knots to untie and no snarls to untangle—the consumer simply pulls out the silk as needed. The business was founded in 1865, and incorporated in 1880. The capital is \$640,000, and they have a surplus of over \$100,000. They maintain offices at 841 Broadway, New York; 120 Kingston street, Boston; 621 Market street, Philadelphia; and 5 Hanover street, Baltimore. The present officers of the company are: President and treasurer, Benjamin A. Armstrong; secretary, Benjamin L. Armstrong.

THE NEW LONDON WASH SILK COMPANY, manufacturers of sewing silks, twists and flosses, 30 Hempstead street, has acquired a widespread reputation for making wash embroidery silk in absolutely fast colors, using the "Tyrian" dyes, which always hold their original brilliancy. The founders of this company were the first to produce wash silk in this country. This company was incorporated in 1894 with a capital of \$25,000. They have a large plant at the above location, and give employment to a large number of hands. They manufacture the finest kinds of filo, floss, twist, etc., that is placed on the market. In the line of crochet and knitting silk, they produce them in eighty-two shades, and carry, in filo, flosses, twists, and other similar grades, three hundred and sixty-three shades; special lines are also made in Tyrian flosses and lace silks. Their goods are warranted not to split or rough up in working, which makes them popular with the trade. The managers of this concern are thoroughly conversant with the minutest details of the business, and are able to compete with the trade in their line. The present officers are: President, Louis Hauchhaus, New York; vice-president and manager, Robert Smith;

secretary, George A. Hammond, Putnam, Conn.; treasurer, Charles C. Knowlton, Brooklyn, N. Y.

THE BABCOCK PRINTING-PRESS MANUFACTURING CO., 29 Pequot avenue.—This well and favorably known corporation was founded in 1882, since which time its products have become standard ones in the printing markets of the world. They occupy a large plant, and give employment to a large number of skilled workmen. They produce a variety of presses, including the "Dispatch," a fast newspaper press, large enough to print a six-column quarto; the "Optimus," the "Country," the "Regular," and the "Artifix." These are made in over fifty different sizes, each having its own special advantages. The gentlemen connected with the company are well and favorably known to the trade, and are all thorough and enterprising business men, who have brought the corporation into the front rank of the printing-press trade, owing to their inventive and executive ability and business energy. The concern forms one of the important adjuncts to the manufacturing interests of the city. The present officers of the company are as follows: President, Charles B. Maxson; secretary and treasurer, Nathan Babcock; assistant treasurer and superintendent, George P. Fenner. The company is capitalized at \$20,000. The company's main office is located at 9 and 10 Tribune Building, New York.

THE R. T. PALMER CO., 8 and 10 Washington street, are probably the largest manufacturers of bed comfortables in the world. Their factory plant is a large and imposing building, and they give employment to a large number of hands. The products, which are principally bed comfortables, horse blankets, carpet linings and quilted fabrics, are standard productions, and are well known in the trade all over the country. The company was incorporated in 1888, with a capital of \$200,000, and since its foundation has been a successful enterprise, and a plant of no little importance to New London's manufacturing industries. The present officers of the company are: President, Tyler R. Palmer, New York; secretary and treasurer, Reuben T. Palmer, Jr. The New York office is at 113 Worth street.

THE G. M. WILLIAMS CO., 45 State street, incorporated in 1893 with a capital of \$25,000, are large dealers in hardware, tools, iron and steel, bicycles, etc., and conduct one of the largest stores in this line in New London county. The men connected with the concern are among the best known business men of eastern Connecticut, and have a high financial standing. The present officers of the company are: President, Benjamin A. Armstrong; secretary, Benjamin L. Armstrong; treasurer, Coleby C. Jeffrey.

THE D. E. WHITON MACHINE CO., 59 Howard street, was established as far back as 1856, at West Stafford, Connecticut. In 1886 it was incorporated with a capital of \$50,000, and the business removed to New London. The concern operate a large plant, and manufacture a variety of articles which would naturally come under their caption. Their specialties are gear cutting and centering machines; also drill and lathe chucks, both universal and with independent jaws, from new patterns and under recent patents. The company occupy an important place in the manufacturing industries in their line in New England. Their products are standard with the trade and are always found reliable. The best of material is used, and the labor is performed by skilled mechanics. Their factory plant is well equipped with the most modern appliances for the prosecution of their business, and the latest devices are always adopted if of merit. Their goods are carried by dealers all over this country and in Europe, and are reputed to be the best in the market. The present officers are: President, David E. Whiton; secretary and treasurer, Lucius E. Whiton. Both gentlemen are well known among the trade, and are important factors in the industrial, commercial and social life of New London.

THE DRUMMOND STEAM BOILER WORKS, 53 WATER STREET.—Mr. Thomas Drummond, the proprietor, has been engaged in boiler-making for nearly fifty years and thoroughly understands every detail connected with the work. He constructs marine, stationary and locomotive boilers, besides doing repairing to boilers of any kind. His plant is thoroughly equipped with every facility for conducting business, and gives employment to about fifty hands. Mr. Drummond gives his personal supervision to the construction work, and always gives a guarantee of satisfaction to all boilers turned out at his plant. His trade is an extensive one, his products being in use in almost every state in the Union. He has invented and secured patents on many devices which he applies to his work, and which give them a high standing in the market. He has a clean record in the business community, which he has established by his honorable methods and strict integrity during his long business career. He has long been a resident of New London, and is deeply interested in the growth and prosperity of the city.

THE ONECO MANUFACTURING CO., 49 and 51 Water street, stand among the important industries of New London, and are extensive builders of steam engines, iron and brass founders, and manufacturers of composition and steel roller-bushings and sheaves. They also give special attention to repairing steamers, electric lighting and power. All work is executed promptly and guaranteed to give entire satisfaction. The products of this concern are sent in all directions. The men connected with this concern are among the solid financial men of New London, and are closely identified with its business interests. The company was incorporated in 1893 with a capital of \$100,000, and has become one of New London's successful industries, owing to the superb business ability and energy of its managers. The present officers of the company are: President, C. Augustus Williams; secretary and treasurer, Thomas W. Williams. The head of the concern, Mr. C. Augustus Williams, is also at the head of the large commission house of C. A. Williams & Company, which is one of the old landmarks of New London, and one of the best known houses in its line in New England. This house was largely interested in the whaling industry during the palmy days of that business. Mr. Williams has owned and conducted this business since 1877.

C. D. BOSS & SON, biscuit and cracker manufacturers, 10 to 18 Water street, is one of the best known firms in its line in New England. They are the originators and only manufacturers of the famous "Boss milk biscuit," patented and registered. This brand of biscuit is made from the choicest selected wheat, milled in a special manner for them, and the biscuits are lightened by the Boss improved leavening process. They also manufacture large quantities of baking-powder, which bears their name. The plant of this firm is well equipped with improved machinery and appliances adapted to the business, and a large force of hands is employed. The goods find a ready market all over New England, and are recognized as standard. Charles D. Boss, the owner and proprietor, has had years of experience in his line of business and understands it thoroughly, and by his knowledge of the trade and his energetic business ability has been able to gain a reputation for his goods that stands second to none in the state. His lunch milk-biscuit and other crackers are familiar articles of food in almost every household in New England.

JOHN SALTER & SON, granite dealers, successors to Merritt, Gray & Company, are one of the best known concerns in their line in New England. The business was established in 1867, and since that time its products have found a market in all sections of the country. They both quarry and manufacture, and their motto is: "No middle men between us and customer." They produce monuments, mausoleums

and statuary, in Groton, Westerly, Quincy, Barre and Scotch granites. They are also large importers of foreign granite and marble. First-class material and workmanship from new and original designs is the key to the phenomenal success of this concern. The firm is composed of John and J. Frank Salter, both of whom are practical, and have a thorough knowledge of the trade in all its details. They have filled large contracts for building material, and produced some handsome and costly monuments for various sections of the country. Their dealings are always satisfactory, and the goods furnished are at all times as represented. They operate an extensive quarry in Groton, and are interested in quarries in other sections of New England. The main office is at the City Ferry Landing, Groton.

THE WILLIAMS MEMORIAL INSTITUTE, one of the most imposing structures in New London, was founded and endowed by the late Mrs. Harriet P. Williams, of Norwich, Conn., as a memorial of her son, Thomas W. Williams, 2d, a distinguished whaling merchant of New London, who died in 1855. The building is erected upon the site whereon he was planning to build his private residence. The cost of this school building is about \$85,000. The endowment fund for maintaining it will amount to about \$100,000. Here, girls residing temporarily and permanently in the city of New London, or from adjoining towns, have the privilege of receiving a High school training, for all time to come. This handsome building is situated on a high knoll, some twenty feet above the street level, in the northwestern portion of the city. It is of the Romanesque style of architecture, and is built of Leete's Island granite, Long Meadow sandstone trimmings. The attention of the visitor is at once attracted by its beautiful proportions and symmetry of design. The officers at present are: President, C. A. Williams; Corporators, C. A. Williams, Henry R. Bond, Charles Barns, Augustus Brandegee, Benjamin Stark, Thomas W. Williams, Frank L. Palmer.

F. H. CHAPPELL & CO., 284 to 289 Bank street, are the largest wholesale and retail coal dealers in New London county. They have long been established in the trade, and are well known and highly esteemed. They handle large quantities of coal, wood and water for shipping. The firm is composed of Frank H. and Albert H. Chappell, both men of high social and financial standing in the community and popular in business circles from their fair and upright dealing. Mr. F. H. Chappell, the head of the above firm, is also president and treasurer of the Thames Tow Boat Company, of which Mr. Alfred H. Chappell is also secretary. This latter company was incorporated in 1865, with a capital of \$150,000. They operate a large fleet of tow boats, and are prepared to do towing to all points on the Atlantic seaboard at special rates. Harbor and river towing is also attended to, coal and other merchandise is transported by barges of from two hundred to two thousand tons capacity, at the lowest rates of freight. Their office is connected with telephone, both day and night, and orders are promptly attended to. Roswell M. Waterman is superintendent.

N. TINKER & SON, meats and provisions, 63 Main street, and the NEW ENGLAND BROOM FACTORY are both owned and operated by George F. Tinker, one of New London's honored and respected citizens. Mr. Tinker has spent all his life in the city, and his interests and associations are naturally all centred here. Both lines of business with which he is connected have been successfully managed by Mr. Tinker, and each stands on rock bottom from a financial point of view; and no business houses in their lines are more popular with the trade. His superior business ability and personal popularity early attracted the attention of his towns-people, and for many years he has been honored with offices of trust both in city and state,

which he has filled with honor to himself and credit to the city. He has filled the office of mayor of the city for several terms, during which all his energies were directed for the best interests of the city from every point of view. There is no man in New London that will do more for the prosperity and welfare of the city, in proportion to his means, than Mr. Tinker, and none stand higher than he in the estimation of the people.

THE FISHER'S ISLAND BRICK CO. is an important factor in the business interests of New London. The men who operate this enterprise are all New London men and closely identified with the city's interests. The principal office of the company is at 81 State street, while the yards are located on Fisher's Island, a close adjunct to New London. The company was incorporated in 1885, with a capital of \$105,000. They are one of the largest brick manufacturers in the state, and possess unsurpassed shipping facilities during the entire year. The products of this concern are delivered by vessel to any port on the coast. The firm are well known throughout New England, and their products are well established in the trade. They produce a superior quality of brick, and the demand for their goods keeps the plant in active operation the year round. The present officers of the company are: President and treasurer, Philip C. Dunford; vice-president, Peleg Williams; secretary, Herbert L. Crandall; superintendent of yards, Robert P. Boss. The head men of the concern are also closely identified with other financial and commercial interests of New London. They have a high standing, both financially and socially.

ALMARIN T. HALE, proprietor of the Crocker House, 174 State street, is probably one of the best-known landlords throughout the state, and the Crocker House is the favorite resort for the traveling public, having maintained that reputation for a long time. Guests once stopping there are sure to seek its hospitalities whenever they visit New London. The appointments of the house are all that can be desired by the most exacting, and the genial landlord is ever popular with his patrons, as he takes pains to see that his guests are made comfortable and every reasonable wish gratified. The Crocker House is one of the most favorably known hotels in New England and the leading house in New London. This condition of things has been brought about by the untiring efforts of Mr. Hale, who always studies to please all who patronize him. He has not only gained great popularity with the traveling public, but the people of his native town have forced upon him honors which he richly deserves. He is at present collector of customs of the port of New London, which office he has filled with credit to himself and the city he represents. He is a hale fellow well met, and his friends, both socially and politically, are legion.

THE PUTNAM FURNITURE MANUFACTURING CO., 308 to 318 Bank street, holds an important place in the industries of New London. The company was incorporated in 1892, with a capital of \$75,000. This is one of the largest houses in its line in Western Connecticut, and has a well-established trade. They display in their show-rooms a fine and selected stock of all the choice selections and latest novelties in furniture, at the lowest prices that can be quoted in New London county. The business is owned and operated by George N. Putnam, who is the president of the company, and Nelson S. Putnam, the secretary and treasurer. Both gentlemen are thoroughly conversant with the details of the business, have a high standing in the financial and social circles, and are well and favorably known to the trade and very popular in the community. They established the business in 1889, and, by their strict integrity and fine business ability, have brought their business to its present high standing.

THE SHEFFIELD TOOTH CROWN CO., 159 State street, incorporated in 1884 with

a capital of \$50,000, was organized by Dr. W. W. Sheffield, who discovered and invented a method whereby false teeth could be attached to the roots of old teeth and restore the mouth to its original beauty and avoid the pain of extracting the old stumps. His system has become quite popular with the public and is being adopted by dentists in general throughout the country. He maintains an office in New York, at 26 West Thirty-second street, which is in charge of L. T. Sheffield, who is the treasurer of the company.

In connection with this business, or at least in close proximity, has been established the SHEFFIELD DENTIFRICE COMPANY, which was incorporated in 1887 with a capital of \$50,000. This concern manufacture Sheffield's crown dentifrice and elixir balm, said to be the best thing in the market for the teeth and gums. It is extensively used throughout the country, and is a favorite adjunct to a lady's boudoir. Dr. L. T. Sheffield is the president and secretary of this latter company, and W. W. Sheffield is the treasurer. The B. F. Allen Company, 365 Canal street, New York, are the sole agents for the United States.

THE NEW LONDON SHOE MANUFACTURING CO., incorporated in 1895, with a capital of \$12,500, have a well-appointed plant, corner Union and Masonic streets, where a large force of operatives is employed. The business of this concern is well established, and their products are well known in the trade. The present officers of the company are: President, George C. Strong; secretary and treasurer, C. Royce Boss; manager, George W. Casavant.

THE ELMENDORF WATER-CLOSET APPARATUS CO., Water street, incorporated in 1890 with a capital of \$10,000, are engaged in the manufacture of a variety of articles used in the construction and operation of water closets. The concern and their products are well known in the trade. The present officers of the company are: President, Charles Prentis; secretary and treasurer, George T. Crofton.

THE HOPSON & CHAPIN MANUFACTURING CO., located on Hamilton street, are large producers of hot-water heaters, which are popular with both the trade and the consumer. The firm were incorporated in 1877 with a capital of \$10,000. The present officers are: President and treasurer, John Hopson, Jr.; secretary, Charles W. Chapin; superintendent, William T. Hopson. The products of this concern find a market in all parts of the country.

J. C. LEARNED & SONS, insurance agents, 25 Main street, are one of the oldest houses in this line in New London county, having been established in 1847 by J. C. Learned. The business is now conducted by the sons of the founder, Walter and Horace C. Learned. They conduct a fire, life, marine and bond insurance business, and issue foreign drafts and letters of credit. No house in this line of business has a better standing in financial or mercantile circles than they. Mr. Walter Learned is closely identified with other business institutions in the city, in which his honor, integrity, zeal and business ability have contributed much toward their standing and success. He is treasurer and secretary of the Savings Bank, of New London, and is also a member of the board of trustees of the public library, and an active member of the board of park commissioners at the present time. Mr. Learned has grown up with New London, and takes a deep interest in all of its affairs. His time and money are freely devoted to anything of public interest that demands his attention, and as a citizen he is held in the highest esteem.

THE SCOTT WRECKING CO., owned and operated by Captain Thomas A. Scott, is known all along the Atlantic seaboard. Captain Scott is one of the pioneer business men of New London, and as a man having a thorough knowledge of all kinds of submarine work he has no superior. He has a well-equipped plant, and is pre-

pared, at short notice, to contract for any submarine work, no matter how difficult. He can furnish steam pumps at short notice, derricks for hoisting heavy weights, examine and repair marine railways, ships' bottoms, dams, etc., etc., do dredging, pile-driving, wharf and sea-wall building, towing to all points between New York and Boston, and general livery by barges, diver, billow and panope.

NICHOLS & HARRIS, wholesale and retail pharmacists, are the leaders in their line in the city. The business was established in 1842, and has been a progressive institution since its foundation. The firm occupy four thousand four hundred and eighty square feet of floor surface and two thousand two hundred feet of cellar-floor surface, and are prepared to handle any amount of business thrown into their hands. Their retail department is at 119 State street, and the wholesale at 10 Main street. The firm is composed of Hiram D. Harris, John C. Nichols, and Horace H. Daboll, all well known and highly respected in the community.

JOSEPH HYDE & SONS, proprietors of the New London Bicycle Company, 24 Division street, are manufacturers of high-grade wheels. They are also proprietors of the New London Vise Works, which are large producers of wrought iron solid box vises, jack screws, ship clamps, well wheels, carpenter bench screws, etc., etc. The firm have a good reputation for turning out a superior class of work, and have thus built up a large trade which extends all over the country. The firm are composed of Joseph, Joseph, Jr., Samuel, Joshua, and George W. Hyde, all practical mechanics with a thorough business training.

JAMES HISLOP & CO., dry goods, 161 to 163 State street, have one of the largest and best-equipped stores in Eastern Connecticut. Their line of dry goods is up to the standard, and embraces everything usually found in a well-appointed metropolitan store.

BARKER & MAY, clothiers and hatters, 48 State street, conduct one of the leading stores in this line in the city. The firm is composed of Edward D. Barker and William T. May. They are well known to the trade and stand high, both financially and socially, in the community in which they live.

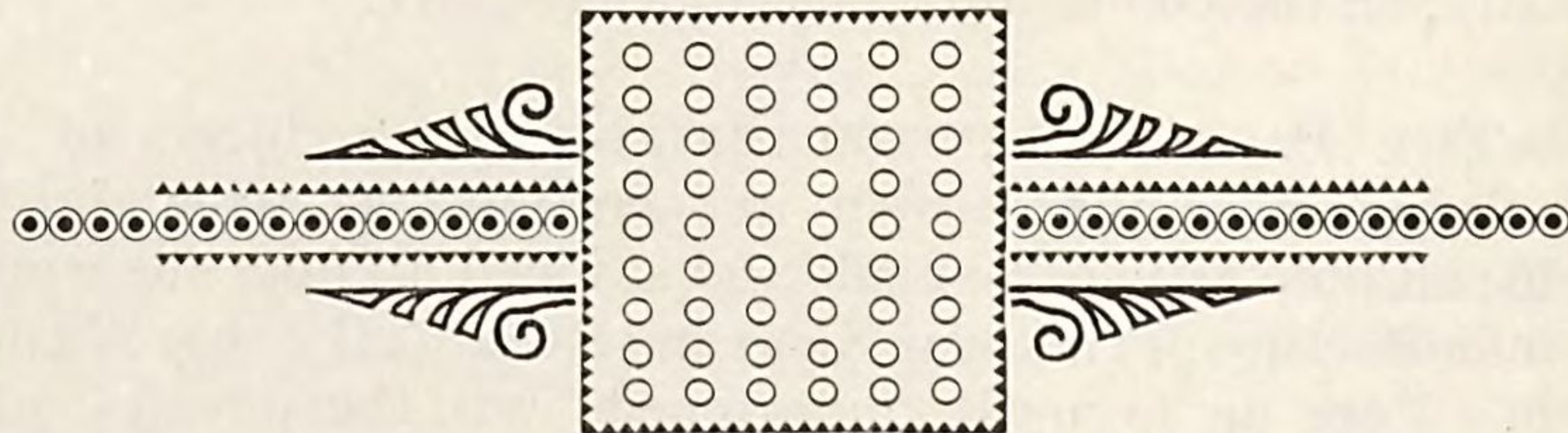
MYSTIC.—THE PACKER MANUFACTURING CO., producers of the celebrated "Packer's Tar Soap," have a large plant in operation here, where large quantities of this almost indispensable article are made and shipped all over the world. Great care is used in the manufacture of this soap, both in selecting the ingredients and in compounding them. Pure tar from the pine forests with the purest vegetable oils and glycerine form a large portion of the mixture. It is a well made and thoroughly combined soap, and being well known among the medical profession is freely recommended by them, and is used in their private and public practice in the treatment of skin diseases, and for all nursery, bath and toilet purposes. It has been recommended for years by physicians as a valuable remedy for skin diseases; for the bath it is pure, mild, antiseptic, lathers freely, and will keep the skin in a healthy condition; for shampooing it will work wonders in curing dandruff and itching, and prevent baldness. Mr. Daniel F. Packer is one of the best known men in the soap or drug trade, through which channels his product largely reaches the people. His remedies are standard the world over, and the great demand shows their sterling worth. Mr. Packer's distributing office is at 81 to 83 Fulton street, New York.

NOANK.—ROBERT PALMER & SON, ship-builders, are an old established concern, and well known all along the Atlantic seaboard. They have a large and well-equipped plant for the successful prosecution of their business, and are prepared to

build or repair almost any kind of vessel that floats, from the smallest to the largest. The Palmers are practical men, and thoroughly understand ship-building in all its features, and any work entrusted to their care will be promptly executed, and entire satisfaction guaranteed. This firm have a reputation for doing excellent work, and some of the vessels that have been floated from this yard safely bear out this reputation.

E. H. POTTER is one of the pioneer merchants of Noank, and a thoroughly successful business man. He conducts a general mercantile business similar to, but larger than the ordinary country store where almost anything needed can be found, from a toothpick to an onion-planter. Mr. Potter has always maintained a well-appointed business plant, and has also kept alive to the times and catered to the wishes of his patrons. He is one of the best known business men in eastern Connecticut, and a man who stands high in the estimation of his towns-people. He is always active in matters pertaining to the interest and welfare of the town.

STONINGTON.—CHARLES E. BRAYTON, druggist, conducts the leading drug store in the town in which he resides, and he is held in high esteem both in business and in social circles.



CHAPTER XCIII.

MIDDLETOWN AND PORTLAND.

BY M. EUGENE CULVER.

OME years ago certain newspapers in neighboring towns frequently spoke of Middletown as the "grave-yard" city, and they thought they had said something very funny, but they had forgotten the old fable of the race between a hare and a tortoise, and to-day, while those same towns in which the smart newspaper editors saw fit to make sport of Middletown because she did not make as much noise and fizz and puff as they did, are apparently at a standstill. Middletown has aroused herself, and although she had all along been pursuing the even tenor of her way, she now is moving at a faster pace, and bids fair to outstrip her younger and more ambitious rivals.

Middletown, while it is a college town, and consequently like other college towns has a large circle of cultivated and intellectual people among its inhabitants, is also distinctively a manufacturing town. Years ago a certain few persons who had, either by their own or some one else's early industry, acquired a sufficient competence to keep them in easy indolence for the balance of their lives, and desiring to spend that balance in quiet Middletown, opposed the running of the New York, New Haven and Hartford Railroad through her borders, and consequently the route was changed and Meriden came into existence. It was one of the same short-sighted gentlemen, I presume, who, rumor has it, violently opposed the blowing of a gong on one of the manufacturing establishments because it disturbed his morning slumbers. But those days are gone, and the quiet gentlemen who cared little to have our city grow and prosper have long since gone to that "city over the hill where there is never a sound of smithy or mill," and to-day we have nearly forty trains per day exclusive of freight trains on the three railroads that intersect each other near the massive bridge that spans the Connecticut river, and with a live board of trade, composed of energetic business men, the old industries and many new ones are carrying on a thriving business within the precincts of old Middletown.

It is not easy to mention them all in detail, but we will endeavor to state fairly and impartially the leading facts concerning each one, and if any shall not receive the proper notice it deserves it will not be any intentional neglect on our part.

In mentioning the various industries of Middletown in the subsequent pages, we shall enumerate them as we happen to think of them, and the first that occurs to us is one that we presume is conceded to employ the largest number of hands, namely :—THE RUSSELL MANUFACTURING COMPANY.

It is said that history repeats itself, and this perhaps is as true in the history of manufacturing enterprises as of the political and social events in the growth of nations.

It certainly is true of the Russell Manufacturing Co., like many other large enterprises that have had small beginnings, that its growth and prosperity was largely due to the great business ability and practical knowledge of one man. This company was organized in 1834 with a capital of \$100,000. The incorporators were Samuel Russell, Samuel D. Hubbard, George Spaulding and others. Its first President was Samuel Russell. The company commenced business in a brick mill, 80x30, three stories high. In 1836, Henry G. Hubbard (nephew of Samuel D. Hubbard), then only twenty-one years of age, was invited by the company to join in the management of its affairs. It was not at first successful, but Mr. Hubbard, having for five years applied himself to obtaining a practical knowledge of its affairs, in 1841 commenced the manufacture of elastic web, which had never before been attempted except on hand looms, a single thread at a time. He obtained the services of a Scotch weaver and soon after invented machinery to weave the web in power looms. This is said to have been the first successful effort ever made in this country and probably in any country to weave elastic web in power looms. In 1850, Mr. H. G. Hubbard purchased his uncle's interest in the business, and soon after, that of Mr. Russell. From that time until his death Mr. Hubbard paid the most scrupulous attention to all the details of the business, and it was his pride and boast that his books were so kept he could in fifteen minutes turn to any account whether five, ten, twenty or thirty years back, and ascertain all of the details as to prices, profits, etc. For years Mr. Hubbard was at his factories before the opening hour in the morning.

One instance is characteristic of the man. Some years ago, when labor unions first began to attempt to dominate and dictate to manufacturers, through some disaffection concerning one man, the employees of the Russell Manufacturing Company threatened to strike. It was at a time when there were over a thousand persons employed, and at a time when business generally throughout the country was somewhat dull. Mr. Hubbard stood on the steps in front of one of his large buildings, and addressed a few words to the assembled employees in language nearly as follows: "I understand you are talking of refusing to go to work to-day. Very well. You can do so if you wish, but I will tell you one thing: if you refuse to work to-day I will close the doors of these mills, and they will not be opened again for one year." He was known to be a man of his word, and there was nothing more heard of a "strike," and we believe there never has been since.

There are now six large mills in successful operation belonging to this company. They manufacture suspender-webbing, halter-webbing and belting of various kinds. Among the varieties of suspender-webbing are some in which elaborate designs are exquisitely wrought in silk, all done by machinery that moves like clock work.

On July 29, 1891, Henry G. Hubbard died, and was succeeded as president by his nephew, E. K. Hubbard, who has attended to business from that time to the present with the same daily faithfulness and energy that characterized his uncle.

The present officers of the company are: E. K. Hubbard, president; W. C. Fisher, treasurer; H. W. Hubbard, secretary; E. L. Bailey, agent.

THE L. D. BROWN & SON CO.—Another industry, also located in the South Farms, whose managers have grown up in it from boyhood, is the L. D. Brown & Son Company, manufacturers of machine twist, sewing silk, floss, dress silks, linings, fish lines, etc. This company was established in 1850, and for years continued as a firm under the name and style of L. D. Brown & Son. In 1893 it was incorporated under the present name.

Like the Russell Manufacturing Company, the success of this industry has been due to one man, or, perhaps, to two, Mr. L. D. Brown, and his son, H. L. Brown.

It used to be said that Mr. Hubbard, of the Russell Manufacturing Company, understood the working of every machine and loom in his factories. Whether this was true we cannot say, but we do know, from personal observation, that the present manager of the L. D. Brown & Son Company understands and can operate every machine and loom in their factory, having worked in and around them since his boyhood.

The manufacture of dress goods is a comparatively new thing with this company, and they are now building a new factory to be used entirely for that branch of the business, and are turning out some very fine goods. This company has sales-rooms in New York, Boston, and Philadelphia.

This company is fortunate in having, as its present officers, such faithful and capable men as compose its present force. The president, as has already been stated, has grown up in the business. Its secretary and treasurer, Seward V. Coffin, is the son-in-law of the president, and the son of the present governor of this state, Hon. O. V. Coffin. Both of these men devote their entire time to the business with that untiring assiduity and perseverance that always characterizes the successful business man.

THE WILLIAM WILCOX MANUFACTURING CO.—Following around the outskirts of Middletown we will come to a place called Zoar (the place to which Lot fled), and so-called in this instance after one Lot D. Van Sands; in this place we find a concern that for years has pursued the even tenor of its way, caring little seemingly for “hard times.”

This company manufacture wrought-iron plate locks, padlocks, iron and wooden hames, etc. Their extensive business was established in 1850 by William Wilcox, and conducted by him until 1875, when the present company was incorporated with a capital of \$50,000. Mr. Wilcox was elected president then, and has remained in that office to the present time. Their plant is located, as before mentioned, in that part of Middletown known as Zoar, and covers an area of ten acres, upon which they have erected seventeen buildings, including an iron and brass foundry, with one ten-ton cupola and two brass furnaces. Both steam and water are used for power purposes, and their equipment is modern and complete. The company is noted for the excellence of its productions in the line of wrought-iron plate locks, padlocks, wrought-iron French and American rim-locks and wooden and iron hames. The materials for these articles are carefully selected, and the volume of the company's trade, which amounts to over \$15,000 monthly, is the best index of the popularity of their goods. This company's trade extends through Europe as well as America. They give steady employment to one hundred and twenty-five skilled hands. They have agencies in Philadelphia and Baltimore. I cannot forbear to emphasize that the success of this concern is still another instance of the success that crowns the industry and ability of one man. Mr. Wilcox, a man standing over six feet high, was in his early days a powerful man, and way back in 1845 he stood at the anvil and hammered out plate-locks for the southern market, the lock business being then in its infancy. Since then Mr. Wilcox has invented and patented a padlock with a rotating key-hub and flat-steel key, and this company were the first to manufacture and put on the market that lock.

THE ROGERS & HUBBARD CO.—Coming in from Zoar, and just before you get to the city limits, you will find a manufactory that runs summer and winter, wet or dry, “hard times” or otherwise. This concern manufactures fertilizers, bone, granulated and raw, for case-hardening, bone and imitation stag-handles and scales for table and pocket cutlery, bone collar-buttons, pipe screws and drug sundries. They

were incorporated in 1878 and have a paid-in capital of \$30,000. They employ from ninety to one hundred hands. Their officers are: Gaston T. Hubbard, president; F. Perry Hubbard, vice-president; W. F. Burrows, secretary and treasurer; G. Tracy Hubbard, superintendent. This business has grown to its present prosperous condition through the untiring energy and shrewd business ability of its officers, each one of whom is just the man for the place.

WILCOX, CRITTENDEN & Co.—Coming just into the limits of the city you will find the establishment of Wilcox, Crittenden & Company, manufacturers of ship chandlery. It is not often that as small a city as Middletown can boast the unique distinction of having located within its borders the largest manufacturing concern of its kind in the world, but this is true of Middletown in this instance. This concern, commencing in a small way years ago, with its present president working at the bench with his own hands, has grown until now there is not another manufacturing establishment in the world manufacturing the same kind of goods that is its equal in size. The firm is composed of Wm. W. Wilcox, E. B. Chaffee, A. R. Crittenden, W. W. Wilcox, Jr.

THE GOODYEAR RUBBER CO.—This concern is doing business on the same site that for over twenty-five years some kind of rubber working has been carried on. The present company has been in possession since 1882. Their plant consists of a group of substantial brick buildings three and four stories high. They have recently built a large addition eighty by two hundred feet. This company employ about two hundred people. They receive rubber in its native raw state from South America, and the cleansing, vulcanizing, etc., are all done here, and various processes gone through with until rubber boots and shoes are finished in a large variety of styles. That this company's goods stand high in the market is evinced by the fact that their business is steadily growing, and at present they are running day and night. The present officers are F. M. Shepard, president; J. A. Minot, secretary; W. G. Vermilye, treasurer and general manager; Alfred Munyon, superintendent. Mr. Vermilye, the treasurer, takes an active interest in Middletown generally, although giving thorough attention to the company's business. He is now president of the Board of Trade in this city.

THE MIDDLETOWN PLATE COMPANY has a large plant composed of substantial-looking buildings, which are as bright and attractive on the inside as they are on the outside. They are located nearly in the heart of the city. Their present large and flourishing business was started in a small way by Mr. Edward Payne, to whom the present success of the business is largely due. They manufacture gold and silver-plated ware, and constantly issue new designs and patterns as the styles change. They employ about one hundred and fifty workmen. The present company is a joint stock company with a capital of \$250,000. Its officers are: President, G. H. Hulbert; treasurer, Edward Payne; secretary, James H. Kelsey; superintendent, J. R. Boice.

W. H. CHAPMAN & Co.—Another industry in Middletown that deserves mention is W. H. Chapman & Co., who manufacture saddlery, hardware and chime sleigh-bells. This firm is located just outside of the city limits in South Farms, and has been doing business for nearly twenty years. It has made but two changes in location since it commenced business. Both of those changes were made in order to get more room as their business increased. They have at present a plant consisting of five good-sized buildings. Their goods are said to be inferior to none put on the market to-day, and the fact that this company has steadily increased their volume of business during the twenty years of its existence, goes to prove the truth of the

statement concerning the quality of their goods. They employ about one hundred hands, and the value of their products is in the neighborhood of \$100,000 annually.

Mr. W. H. Chapman has been with the concern since the partnership was first formed, and is still actively engaged therein; his experience, acquired during a fourteen years' engagement in the Springfield Armory, and five years with the Victor Sewing Machine Company, well qualifying him to successfully work metals.

THE ARAWANA MILLS.—One of the largest and most prosperous industries in Middletown is The Arawana Mills, of which Mr. I. E. Palmer is the proprietor. The factory buildings are situated on a small tributary of the Connecticut river, called Little river, or if we may believe tradition Arawana river, the word arawana being the Indian name for little.

This concern used years ago to be known in and about Middletown as the Mosquito Netting Factory, the first article made being mosquito canopies, and the netting, formerly used so much for windows before the more elaborate wire screens came into use, was commonly called "mosquito nets" among the "common people." Mr. Palmer has invented and been granted patents on about everything manufactured by this concern, including the machinery itself. His first patent was granted him in 1859, on a device connected with mosquito canopies.

Since the days when they manufactured simply mosquito netting and screen cloth, they have made great progress. They now manufacture dress linings, which are said to be equal to any on the market. The article, however, perhaps, which has attracted more attention from the world at large to this concern, is the hammocks they produce. Since the days when the now old-fashioned hammock made of Mexican grass was considered a luxury, Mr. Palmer has improved, patented and manufactured hammocks of such comfort, variety and beauty, that he may well be called a public benefactor. His first hammock patent was dated in 1883, but not much was done with it for some years; but in the past few years this branch of the business has grown to such an extent that it is now fully one-half of his entire business, and he is said absolutely to be without a rival in the world. Hammocks are manufactured by this concern of cotton, jute, silk or of any material that will weave and in all colors.

Our stern old forefathers in staid old New England, and particularly in this land of steady habits, thought it was a sin to take comfort by resting the body in an easy position, and so made their chairs and beds as uncomfortable and unattractive as possible. To-day, however, every tired housewife and business man, and even the farmer and the mechanic knows the luxurious delight of lying or sitting in a hammock in the twilight of a hot summer evening.

About two hundred persons are employed at the Arawana Mills, and there is little complaint of hard times. A good many girls are employed by this concern, the work being easy, and the buildings comfortable in which they work.

W. & B. DOUGLAS.—I suppose it would be difficult to find a person in the United States that had not heard of a Douglas pump, and, in fact, people who have traveled all over the world say that when in China, Africa, India, Turkey or any other country, they see a pump with the familiar name of "Douglas" on it, they feel as if they had met an old friend, so much does it remind them of their native land.

This business was established in 1832 by William Douglas, who was the pioneer in this enterprise, and from a single pattern and pump, invented and manufactured by the firm of W. & B. Douglas in 1842, the business has increased until now over twelve hundred different varieties are manufactured.

It is interesting to note how what has grown to be the most widely-known man-

ufacture in the United States, and probably in the world, had its beginning. In 1832 Benjamin Douglas, then a boy of sixteen years, came from his home in Northford, Conn., and apprenticed himself to his brother, William, to learn the machinist trade. He continued in that capacity for seven years (the old-fashioned regulation time to learn a trade) when he united in business with his brother, William, under the firm name and style of W. & B. Douglas. For three years they carried on an ordinary foundry and machine shop.

In 1842, as has been previously mentioned, they invented the celebrated revolving-stand pump, which proved a great success. William Douglas was a man of great inventive genius, and as fast as he invented one thing and had demonstrated its practicability, he invented another. His first patent on a pump was granted August 20, 1835, and was signed by Andrew Jackson, as President of the United States.

The goods manufactured by W. & B. Douglas are so well known, that it is almost a work of supererogation to mention the fact that they have received the highest awards in Paris, Philadelphia, Vienna, Melbourne, and other parts of the world. As they say in their catalogue, the "Sun never sets on Douglas' pumps."

THE ROCKFALL WOOLEN CO.—This company was organized in 1883, and was the first to use its present site for the manufacture of woolens, it having previous to 1882 been used for nearly three-quarters of a century for the manufacture of firearms, at one time having the largest manufactory in the United States, and General Lafayette is said to have visited it as a place of interest, the last time he was in America.

Since the present company have occupied this old site, under the energetic and skillful management of Mr. Joseph Merriam, the old buildings have been enlarged and new ones built. They give employment to about fifty persons, and their plant is thoroughly equipped for manufacturing, as they do, woolen blankets of various sizes, grades and colors from the raw material. This company's stock is capitalized at \$25,000. Its present officials are: Jonathan A. Lane, president; Joseph Merriam, secretary, treasurer and superintendent.

We cannot forbear to mention in this connection, that Mr. Merriam, notwithstanding his many cares and responsibilities, takes more than an ordinary interest in the welfare of his workmen, and has personally assisted more than one man to buy himself a home through the aid of the Middletown Building and Loan Association, of which organization Mr. Merriam is an active member and director.

There are two bicycle companies located in Middletown:

THE WORCESTER CYCLE MANUFACTURING CO. is located in the heart of the city, in the old Schuyler factory, and although they have only been here a little over a year, are turning out a very nice machine.

THE KEATING WHEEL CO., formerly located at Holyoke, Mass., were induced to come to Middletown by the efforts of the Board of Trade, through whose instrumentality bonds to the amount of \$100,000 were sold, and an immense factory, costing over \$130,000, has been erected. This company's paid-in capital is \$100,000.

THE BANKS OF MIDDLETOWN.—A friend of ours from the great West, where they do things on such a large scale, once said to us, after traveling over Connecticut, "Where do the farmers in this state get all of their money?" We replied, "They make it on their farms." But said he, "How can they on these small farms?" We said, "By hard work and economy." It is a fact that some of our farmers in Middletown have accumulated property worth \$75,000, or \$100,000, and some of them have deposits in our savings banks that would surprise one not acquainted with New England farmers.

THE MIDDLETOWN SAVINGS BANK is one of the largest in this state; if we

remember rightly, it is fourth in size in the state. It was incorporated in 1825. The first deposits were taken July 23, 1825. The first dividend was declared October 31, 1825, and up to November 1, 1896, the bank has divided among its depositors in (143) one hundred and forty-three semi-annual dividends, and one extra dividend, the sum of \$8,911,302! The total deposits, November 1, 1896, were \$6,508,913. Surplus and profit and loss, \$593,668. This bank has never required notice from its depositors, and has always paid them upon presentation of deposit book, and even when currency and gold were at a premium, as was the case in the panic of 1893, they paid in currency or drafts on New York. Its present officers are: Geo. A. Coles, president; H. H. Smith, treasurer; Geo. H. Harris, assistant treasurer; A. L. Allen, secretary.

THE FARMERS' AND MECHANICS' SAVINGS BANK, the only other savings bank in Middletown, is in a flourishing condition, although not as old nor as large as the Middletown Savings Bank. It was incorporated in 1850. It had a total deposit October 1, 1896, of over two and a half millions of dollars. Its present officers are: John M. Douglas, president; Fred. B. Chaffee, secretary and treasurer.

There are four national banks in Middletown. The MIDDLETOWN NATIONAL BANK is the largest and the oldest. It has its own banking-house, fitted up in an elegant and convenient manner. Its officers are men who have been identified with it for a long term of years, and to their faithful and arduous labor and incessant application to their duties may be attributed the success of this successful bank. Mr. M. B. Copeland, its president, has been a familiar figure there for years, as is likewise true of Mr. William H. Burrows, its present cashier.

This bank was incorporated in 1795, nationalized in 1865. Its capital is \$369,300. Of the three other banks it would be in part a repetition of what has already been stated concerning the Middletown National Bank as to their success. Although not quite as old in point of years, they are all doing a good business.

THE MIDDLESEX COUNTY NATIONAL BANK was incorporated in 1831 and nationalized in 1865. Its capital is \$350,000. Its officers are: James K. Guy, president; W. B. Hubbard, cashier.

THE CENTRAL NATIONAL BANK was incorporated in 1851, nationalized in 1865; capital, \$150,000; surplus, \$50,000. President, A. C. Markham; cashier, R. C. Markham.

THE FIRST NATIONAL BANK was organized in 1863. Capital, \$200,000. Seth H. Butler, president; C. W. Harris, vice-president; E. G. Camp, cashier.

THE MIDDLESEX BANKING CO. was chartered by the legislature of the state of Connecticut in 1872, and began business November 5, 1875, with a capital paid up of \$50,000. Its capital stock has been increased from time to time until now there is a subscribed capital of \$806,700, of which \$679,028.77 has been paid in. The assets of the company October 1, 1896, were \$8,642,750.65; its surplus, \$150,000, and undivided profits, \$17,198.85.

The business of the company has been the investment of funds in first mortgages upon Western lands, beginning with the state of Indiana, and afterward extending its operations to Wisconsin, Minnesota, Dakota, Colorado, Mississippi, Louisiana, Texas, Arkansas, Utah and Idaho. The loans have been made almost exclusively upon farm property, and nearly twenty millions have been lent during the twenty-one years of the company's existence.

At first the company's business was in selling these mortgages guaranteed by themselves, but since 1881 the company has sold its debentures only secured by first mortgages deposited with a trustee, the trustee holding them as collateral security. The debentures have been sold both in this country and in Europe, bearing 6 per

cent. in America and $4\frac{1}{2}$ per cent. to 5 per cent. in Europe. The home office of the company is in Middletown, as provided by its charter. Its main Western office has been for many years at St. Paul, Minnesota, with branches at Denver, Dallas, Memphis and Salt Lake City. Its principal foreign office is in London, with agencies at Edinburgh, Dublin, Belfast, Manchester and Brussels.

This company has a fine banking-house of its own, built by the company some years ago. Its present officers are Robert N. Jackson, president; M. E. Vinton, C. E. Jackson, vice-presidents; D. T. Haines, secretary; E. A. Gladwin, assistant secretary.

INSURANCE COMPANY.—Middletown is the home of but one fire insurance company, of which it is justly proud. Its corporate name is THE MIDDLESEX MUTUAL ASSURANCE COMPANY. It was incorporated in 1836, and from a modest beginning has gone on until its present cash assets are over \$724,000. It owns the building in which its home office is located, and in this same building is an opera-house called the Middlesex, built by this company at a cost of over \$125,000. This opera-house is said to be one of the finest in New England, and in its appointments, scenery, etc., compares favorably with any theatre of its size in any of the large cities of the United States. This company is fortunate in having for its president and treasurer, Hon. O. V. Coffin, a man of marvelous executive ability, and who, aside from keeping in his hands and under his personal oversight the affairs of this company, has for the past two years most ably filled the position of governor of the state of Connecticut. The other officers of this company are men who have held their position for a number of years, Mr. C. W. Harris occupying the position of secretary, and Mr. D. W. Chase that of assistant secretary.

THE COLUMBIA TRUST CO.—This company was organized April 24, 1896. The charter was obtained in 1887, but the company did not commence doing business until April, 1896. Its authorized capital is \$500,000; paid in, \$50,000. This company is the only trust company in Middletown; does a general banking and trust business, deals in high-grade securities, etc. It is yet too early to prophesy how much of a success it will be, but from the character of the men who are connected with it, it is fair to presume that if any company of this character can succeed in this city, the Columbia Trust Company will. The officers are: E. H. Burr, president; O. E. Stoddard, vice-president; C. B. Leach, secretary and treasurer.

MIDDLETOWN BUILDING AND LOAN ASSOCIATION.—Not the least important, but, on the contrary, one of the surest indications of the prosperity of its work-a-day inhabitants, is the Middletown Building and Loan Association. Starting nearly eight years ago with nothing, in May, 1889, it has quietly gone on receiving monthly payments and issuing certificates of stock until its semi-annual statement, September 15, 1896, showed a total liability to shareholders of over \$100,000. Of this amount nearly \$88,000 has been loaned to shareholders on real-estate, and over \$11,000 on stock loans. Of this \$88,000 loaned on real-estate, and secured to the association by first mortgage, not one dollar has yet had to be foreclosed upon by the association.

It has been a success from the start, and, during the past three years of "hard times," nearly all of the shareholders have managed to make their monthly payments. The present officers of the association are: Eddie S. Davis, president; Frank S. Hills, vice-president; George A. Craig, secretary; Fred. E. Gibbons, treasurer; M. Eugene Culver, attorney. This association has earned about nine per cent. yearly, and has allowed any shareholder to withdraw his stock, and has paid him therefor its present value with whatever its earnings had amounted to.

It is a fact of significance that the association has not loaned a dollar on real estate situated outside of Middlesex county, and the larger part has been loaned in Middletown to young men who wished to build houses for themselves.

In conclusion we will call attention to another industry of Middletown, which, while not very old, is exercising a potent influence for the growth and prosperity of this formerly called sleepy town.

THE MIDDLETOWN BOARD OF TRADE.—This organization is only one and a-half years old, but during its brief existence it has been exceedingly lively. It has been the means of the Keating Wheel Company's building a factory here over 1,000 feet long by 50 wide, and through its efforts, bonds to the amount of \$100,000 were purchased by the citizens of this city. Its present board of officers are: William G. Vermilye, president; John C. Broatch, 1st vice-president; James Lawton, 2d vice-president; Elmer G. Derby, secretary; George A. Craig, treasurer. Directors: George A. Coles, William H. Burrows, Henry L. Brown, James Donovan, Gaston T. Hubbard, Joseph Merriam, William W. Wilcox, Jr., Elijah K. Hubbard, Jr., Walter B. Hubbard, Henry Woodward.

PORTLAND.—The present town of Portland was originally known as East Middletown, but in 1767 was incorporated as Chatham, that township also including the present villages of East Hampton and Middle Haddam. In May, 1741, what is now known as Portland was set off from Chatham as a separate town. There have been mills in Portland from a very early date. The old Ravine mills supplied the Continental Army with flour, and until recently were still in use. Ship-building has always been the chief industry of the village of Gildersleeve in that town. The first ship built there was launched in October, 1741. During the Revolutionary War and the War of 1812, many war vessels were built in the Portland shipyards. Sylvester Gildersleeve started his present shipyards in 1821, and soon after associated with him his sons, and the firm of S. Gildersleeve & Sons is known the world over. They constructed vessels whose combined tonnage is upwards of seventy thousand tons, and whose valuation is nearly \$3,000,000. In 1877 they constructed a marine railway, 400 feet in length, built on piles two feet apart, and of sufficient strength for handling with ease and safety vessels of eight hundred tons. The steam gunboat "Cayuga" was built here for the United States Government in 1861. In addition to their shipyard this firm conducts a large repairing business, a steam saw-mill and a large general store. They have recently launched the largest barge ever launched on the river.

Portland is built around and above immense quarries of brownstone, and at present there are two large quarry companies, the Brainard, Shaler & Hall Company and the Middlesex Quarry Company. The former company was formed a year ago by the consolidation of the Brainard & Shaler and Hall quarries. They have recently obtained control of the Connecticut Freestone Quarry, at Cromwell. The Portland brownstone trade furnishes employment for a large fleet of vessels between that town and the principal cities of this country. According to mechanical tests made with the United States testing-machine at the Watertown Arsenal, it requires a pressure of fourteen thousand three hundred and seven pounds per cubic inch to crush the stone. The annual production of the best quality of stone is estimated at one million cubic feet per year, while there is about twice as much stone of inferior quality quarried. The capital of the Brainard, Shaler & Hall Quarry Company is \$660,000. The officers are: President, John H. Hall, of Hartford; vice-president, Frank Brainard; secretary, W. H. Edwards; treasurer, J. B. Brainard. They control one and a half

miles of water-front, eighteen hundred feet of docks, three miles of private railway, two locomotive cranes, ten hoisting engines, and employ between five hundred and six hundred men. In 1891 they constructed the largest and most powerful traveling carrier in the world. It is about seven hundred feet long, sixty feet wide, and by its use stone of almost any weight can be handled with ease, and in the space over which it runs about eight hundred thousand cubic feet of stone can be stored. It runs parallel with the water-front, rendering the loading of vessels an easy task.

THE MIDDLESEX QUARRY CO. occupies land adjoining the other quarry. It was opened in 1819, and at the present time employs between two hundred and four hundred hands, according to the season. It is equipped with cars and locomotives, and its product has been sent to all parts of this country. Several buildings, and the new Parliament houses at Toronto, Canada, five United States post-offices, Cooper Institute, Astor Library, and other public buildings in New York and other cities, were built from stone furnished by this quarry. The capital of the company is \$500,000. The officers are: President, F. Gildersleeve; treasurer, C. A. Jarvis; general manager, Henry A. Cornwall; assistant manager, Archibald C. Goodrich.

THE CONNECTICUT STEAM BROWNSTONE CO.—In 1884 a flour and grist-mill of Erving I. Bell was destroyed by fire, and instead of rebuilding the same he commenced the business of cutting and finishing the rough brownstone, giving it any shape desired. This business was incorporated in 1891 under the name of The Connecticut Steam Brownstone Company. The mills are equipped with diamond saws and gang-saws, planers, lathes, rubbing-bed and turning-machines. They employ about one hundred skilled hands, cutting and carving not only brownstone, but all kinds of sand, freestones and limestones according to architects' plans, and when thus cut, the several pieces are numbered so that they may be set up in any city with as much certainty of their fitting as if cut on the spot where the building was to be erected. The company has immediate railroad connections, immediate waterfrontage and dock facilities. The capital is \$100,000. Erving I. Bell is the president, treasurer and general manager, and his son, Harry C. Bell, is the secretary.

THE PICKERING GOVERNOR CO.—Adjacent to the Air Line Railroad lies the plant of the Pickering Governor Company, whose principal product is the Pickering Governor, which is used the world over for controlling the speed of steam engines of every kind. The governor is the invention of the late Hon. Thomas R. Pickering, and is the first governor ever made on the spring principle. In this governor, which is a radical departure from the old-fashioned gravity governor, the law of gravitation is so completely ignored that it works equally well in any direction. In its construction a mechanical movement is obtained without a joint, a principle which has earned recognition by all mechanical authorities. The plant is one of the two largest in the country. All material is received in the raw state. The governors range in size from three-eighth inch to twelve inches steam connection; in height from ten inches to six feet, and in weight from five pounds to one thousand pounds. The Hon. T. R. Pickering died in 1894, while serving as senator from the Twenty-second Senatorial District. He had represented this country at international exhibitions at Paris three times, Vienna, and Melbourne, besides being commissioner at the Centennial Exposition and at New Orleans. The company employs some seventy-five skilled mechanics and has a capital of \$100,000. The present officers are: President and treasurer, John H. Hall, of Hartford; secretary, Stephen S. Hall; superintendent, Richard H. Pascall.

EASTERN TIN-WARE CO.—The extensive works of the Eastern Tin-Ware Company are adjacent to the Air Line Railroad, where they own some forty acres, their

mills alone covering three acres of ground. Near the factories are the dwelling houses built for the employees. This company is a branch of the American Stamping Company, of Brooklyn, N. Y. The Eastern Tin-Ware Company has a capital of \$100,000, while the American Stamping Company has a capital of \$450,000. The officers of the Portland company are: President, Joseph Scheider; vice-president, E. Ettenheimer; secretary, B. Gluck; treasurer, J. A. Einstein. They employ at the Portland factory nearly five hundred hands, and the products are plain and re-tinned stamped ware, japanned, galvanized, and enamelled ware. They have recently erected a large enamelling department containing fifteen extensive kilns. They also manufacture all kinds of tinner's trimmings. They are large importers of plate and pig tin and have an extensive trade in this country as well as abroad. This company has a private reservoir holding one hundred thousand gallons.

THE PORTLAND STREET RAILWAY CO. was incorporated in 1893, with the following officers: President, Oliver Gildersleeve; vice-president, E. I. Bell; treasurer, A. E. Pond. Subsequently the operating of the road was leased to the Middletown Street Railway Company, and the electric or overhead trolley system was built from Middletown to Gildersleeve. The road crosses the Connecticut on the new highway-bridge, and is considered one of the finest-built roads in the country. The present superintendent and secretary is E. W. Goss, of Middletown.

THE PORTLAND WATER CO. was incorporated in 1889, with a capital of \$100,000. The reservoir is located at the foot of Mesawmesic mountain, and has a natural water-shed of four and a half square miles, and a holding capacity of sixty million gallons. The officers are: President, Oliver Gildersleeve; vice-president, L. H. Fuller; secretary, H. Gildersleeve; treasurer, Charles F. Parks, of Boston. The company has laid seventeen and a half miles of pipe, and has eighty hydrants, covering the main portions of the town.

THE FIRST NATIONAL BANK OF PORTLAND was incorporated in 1865, with a capital of \$150,000. It now has a surplus of nearly \$30,000 in addition to its capital and deposits, rising \$130,000. It owns a commodious home of its own, adjoining the new town hall. The officers are: President, Ferdinand Gildersleeve; vice-president, George G. McLean; cashier, John H. Sage; directors, N. Shepard, F. Gildersleeve, J. E. Jones, Frank Brainard, George G. McLean, C. E. Blodgett, C. H. Bell, Mrs. Myra Pickering, O. Gildersleeve and A. J. Cornwall. The Free Stone Savings Bank was incorporated in 1865, and is located in the National Bank building. At the present time the bank has over thirteen hundred depositors, whose gross deposits are upwards of \$400,000, and the undivided profits amount to \$20,000. The officers are: President, F. Gildersleeve; vice-president, Nelson Shepard; treasurer, John H. Sage; directors, Hobart Davis, E. I. Bell, C. A. Sears, O. Gildersleeve, C. H. Edwards, Frederick De Peyster, John H. Sage, F. Gildersleeve and N. Shepard.

FELDSPAR MINE.—An extensive mine of feldspar has been discovered near the South Glastonbury line, and in the spring a large mill will be built, and the quarry developed to its fullest extent.

The following firms conduct quite an extensive business in the packing of leaf tobacco, and in the manufacture of cigars: S. Gildersleeve & Sons, C. C. & W. F. Goodrich, C. K. & H. T. Hale and Shepard & Company.

CHAPTER XCIV.

MANUFACTURING INTERESTS—Continued.



THE COLLINS COMPANY.*—Till the founders of this company began operations in 1826 all axes were hammered out by blacksmiths, with no aid from machinery, and were sold without an edge. On the part of purchasers several hours of grinding were needed to fit them for use. At that time two brothers, Samuel W. and David C. Collins, were clerks in the hardware store of David Watkinson & Co., of Hartford, Mr. Watkinson being their uncle. Among the customers of the firm was a blacksmith from Somers, named Morgan, who made axes of superior quality. Thus the attention of the brothers was attracted to the matter, and after some experiments they decided to undertake the manufacture on an enlarged scale, sending the product to market, ground and polished, ready for use. With a relative, William Wells, the brothers formed a partnership in 1826, under the firm-name of Collins & Co. A few miles west of Hartford, in the town of Canton, on the Farmington river, they bought the Humphrey grist-mill privilege, and started an enterprise which now ranks as the largest manufactory of edge tools on the planet. The village which sprang up around the works took the name of Collinsville. In December, 1831, a post-office was established here.

In the division of responsibility Samuel W. Collins took charge of the manufacturing department, while David C. made both purchases and sales, with his office first in Hartford and after 1842 in New York city.

In 1833 a sudden and wholly unexpected curtailment of its line of discounts at the bank upon which it depended for accommodation, a step which the managers claimed was not justified by any change for the worse in its financial condition, forced the company to suspend payments. The next May the General Assembly chartered the "Collins Manufacturing Company," with a capital of \$300,000, "for the purpose of manufacturing edge tools in the most advantageous manner." During the year a reorganization was successfully effected. The corporation succeeded the partnership, every claim was paid, and financial embarrassments became a thing of the past. By an amendment to the charter in 1843 the name was changed to "The Collins Company," and its powers were enlarged to manufacture iron, steel and other metals, and any articles composed of them.

From the outset the concern was eminently progressive in adopting methods and devising machinery for facilitating production. Among edge tool works it was the pioneer in the use of Lehigh coal, beginning with this form of fuel in 1829.

On the 18th of August, 1832, the company made a written contract with Elisha K. Root, a mechanic of remarkable ingenuity, to work for two years at a compensation of \$546 per annum, to be paid at the end of each year, three hundred and twelve days to be a year's work. His qualifications were so obvious that he was soon made

* By P. Henry Woodward.

overseer of the repair department, and after a short interval of the whole establishment, though the title of superintendent was not conferred on him by the directors till 1845. A single incident will illustrate the depth of his insight. About 1836 he was confronted by the sudden failure of a heavy and complicated machine used for forming the head of the axe, including the eye. The repairer having tried in vain to remedy the trouble, called in Mr. Root. A number of unsuccessful experiments disclosed the seriousness of the case. After an interval of abstraction Mr. Root took a seat, motionless and in silence, before the recalcitrant monster, whose mighty arms refused longer to slave. Returning from dinner he held the same immovable attitude till night. No one presumed to interrupt the vigil. Still the mystery baffled him. The next morning the silent communion was resumed. Soon the clouds broke. Without a word Mr. Root went to his desk and dashed off a sketch that, while preserving the massive frame, dispensed with a multitude of pieces, and produced the needed motions by a few simple contrivances. The reconstructed machine recognized the genius of its master by the unfaltering precision with which it did its appointed work, till replaced a few years later by a new invention of his own, which is still in use.

While in the service of the company Mr. Root made many inventions and improvements, including several of great value. He devised the machine for punching the eye of the axe out of solid metal, and another for sharpening the tool by shaving instead of grinding. February 3, 1836, for a nominal consideration, he transferred to the company his entire interest in the patents with which he had enriched it, and made a new contract to run three years with the stipulation that all inventions he might make should belong to it exclusively. Mr. Root left in 1849 to become superintendent of Colonel Colt's shops in Hartford.

Samuel W. Collins, as resident manager, through high character and ability, attracted many men of similar qualities to the enterprise as shareholders. Directors selected from such a constituency proved a great help as counsellors in seasons of prosperity, and as active supports in the somewhat periodical financial crises that bring ruin to many. He encouraged schools and churches. He strove to exclude from the village temptation to evil. To stop dram-selling he bought two hotels and one drug store. In all deeds of land he inserted a proviso prohibiting the manufacture or sale of liquor under penalty of forfeiture. He hired one man to sign a pledge never to live within ten miles of the town. He was quick to discern talent, and to reward fidelity in the service of the company. His manners, though somewhat reserved, were always kindly and courteous. Under such guidance the establishment grew steadily during a period when the manufacturing industries of the country met an undue share of reverses.

After the outbreak of the Civil War the company engaged largely in making swords, sabres and other weapons. Every floor was crowded with work, and the plant was enlarged here and there to meet the pressure. In 1863 and 1866 the charter was amended to authorize an increase of capital to \$500,000 and \$1,000,000 respectively. From time to time installments were called in till 1870 when the entire million was fully paid.

In 1867-8 the company built a dam of granite across the Farmington, three hundred feet long and eighteen feet high. For the first layer of blocks a groove was cut through the rock-bed of the stream. The material used in construction was taken from quarries near by.

Samuel W. Collins died in 1871. Before that event, failing strength warned him to seek assistance. In 1867 Major William J. Wood became vice-president and gen-

eral manager. Major Wood, a native of New Jersey, and a graduate of Princeton College, while serving toward the close of the war as paymaster in the army, was stationed in Hartford, where, in 1866, he married Miss Frances Howe, daughter of Edmund G. Howe, a leading financier of the city.

Most of the directors were advanced in years, and for that reason, perhaps, a few thought that Major Wood was too young to assume the care of a business that already encircled the globe. But results amply justified the choice. He brought to the position talent, energy, tact and devotion.

Edward B. Watkinson, of Hartford, succeeded Mr. Collins as president. His share in the management was comparatively slight, as was the case with George Handy and Gov. William W. Ellsworth, the first two persons to hold the office. Mr. Watkinson died in 1884, when Major Wood was elected to the place, but his incumbency was short, for he, too, passed away in 1885, on the 25th of October. He was also at the time president of the Connecticut Trust and Safe Deposit Company.

Edward Hale Sears, who, in the leading minds of the company, had long been marked for the place, was elected president and general manager after the death of Major Wood. On graduation at the Collinsville High School, he intended to pursue scientific studies with the view of becoming a civil engineer, but at the solicitation of Samuel W. Collins, entered the office of the corporation in 1863 instead. To the business on both the mechanical and financial sides his energies from boyhood have been unceasingly devoted. Combining high powers for organization with minute familiarity with every department of the establishment, and with the gift of managing men without friction, he has seen the work steadily grow and prosper.

About three-fourths of the product is sold in foreign countries. Each of the South American states, Great Britain, the West Indies, Australia, New Zealand, Siberia, Africa and other distant lands, call for special patterns suited to their special fancies or needs. Great care is taken to meet their wants. However much the tastes of customers may differ in regard to weight or form, they agree that no other edge-tools equal in efficiency the product of the Collins shops. With wages sixty per cent. higher than abroad, and with duties added to the cost of iron (admitted free into Great Britain, our most formidable competitor), the company holds its ground in both hemispheres by the superior excellence of its goods.

The steel in use is made on the premises from the best Swedish Dannemora iron, with the best appliances known, under the direction of experts. Several tons of the imported bars are packed with charcoal in closed converters, where heat is applied for ten or twelve days. By that time the iron has become steel. It is now broken into small pieces and sorted by a trained hand. Experience has taught just what mixtures are required to produce the best results in making different tools. The assorted fragments are then packed in crucibles containing ninety pounds each. These are now placed in a Siemens regenerative gas furnace, where for three hours they are subjected to a heat of 3000 degrees Fahrenheit, when the contents, in a fluid state, are poured into molds. The ingots, weighed and labeled, are then ready for the rolling mill. The Siemens furnace with the accompanying plant for converting coal into gas were introduced in 1894. By this method intense and easily controllable heat is produced at a minimum of waste.

The iron for the heavy part of the tool is also made on the premises from the best grades of wrought scrap, which is bought in large quantities at a time.

Here, too, is made most of the heavy machinery used in the works from designs and patterns prepared on the spot. This involves the maintenance of a foundry and machine shop with a corps of skilled mechanics. Repairs, no small item in an establishment of such magnitude, are made in this department.

The cutting part of the Collins axe is made by opening the poll, or iron-head, and inserting the steel blank which thus extends far up the central line toward the eye. With this arrangement the steel cannot be exhausted by wear or grinding. Some concerns weld a thin layer of steel over the iron. It is obvious that this form is far less durable, as the steel extends back on the surface instead of the centre.

Most of the processes between the crude iron and the finished tool convey an impression of vast force in the form of heat or pressure. But the tempering on which its efficiency depends is an operation of extreme delicacy. In the ovens used for the purpose heat is applied gently till the trained eye of the expert judges by the color that the proper moment has arrived, when it is taken out and hung in the tempering fluid to cool. The temper is made permanent by the use of charcoal.

The number of various patterns of edge-tools made by the company reaches about one thousand, exclusive of different sizes of the same pattern. Certain standard patterns of axes are uniform in weight. Others vary from two to seven pounds, increasing by gradations of four ounces.

We have dealt at length on axes, but the business of the company has broadened to include adzes, machetes, sugar-cane knives, picks, mattocks, shovels, spades, sledges, railway tools, wrenches, hoes, bush hooks, fish spears, wedges for coal and wood, cast steel plows, and other implements, all in a great variety of patterns to suit the differing tastes of many lands. Each article passes through from eight to ten departments and is severely tested in each. If found in the least defective it is thrown aside.

In addition to the agricultural uses for which they are designed the machetes have proved a formidable weapon in war. The blade is so finely tempered that it will cut off large nails without nicking the edge.

During the seventy years of its existence the works have gradually expanded from small beginnings till forty-five separate buildings, devoted to different processes of manufacture, now cover sixteen and a half acres. Including tenement-houses, one hundred and twenty-three buildings belong to the company. Since 1880 the productive capacity of the plant has been doubled without any increase of capital account, all improvements having been paid for from net earnings, with steady dividends to stockholders.

In ordinary times the company makes and sells thirty steel plows and five thousand axes and edge tools per day, besides manufacturing the iron and steel used for the purpose.

Power is largely furnished by the Farmington river which here flows in a broad swift stream. Near its source the company controls a reservoir covering a thousand and fifty acres for supply in times of drought. Four steam engines reinforce the water-power. Ten thousand tons of Lehigh and bituminous coal are consumed every year, besides the charcoal used for carbonizing and tempering steel. Six hundred tons of grindstones imported from Nova Scotia are annually worn out. Two railways, the New York, New Haven and Hartford, and the Philadelphia, Reading and New England, load their cars in the yards.

The village of Collinsville, dependent wholly on the factory, contains about three thousand inhabitants, of whom six hundred work in these shops. Many of the men have been in the service of the company from boyhood, taking deep interest and pride in its welfare; a large percentage own their own homes. The care taken by employees of their homes and lots gives an air of refinement to the residence districts. The village has an excellent system of graded schools; in the higher departments boys are fitted for college. There are five churches—in the order

of various churches, Congregational, Roman Catholic, Episcopal, Swedish and German Lutheran. The Savings bank has over \$620,000 of deposits, with a surplus of about \$100,000. Nearly all its patrons live either in the village or its immediate vicinity. The working-house of H. S. Collins & Co. affords facilities for deposit and withdrawal.

Board of Directors: H. Sears, president; Charles Hopkins Clark, vice-president; J. B. Whipple, secretary and treasurer. At the works William H. Root, president; J. B. Whipple, superintendent.

Formerly connected with the firm: George Handy, Governor William H. Ellsworth, General W. C. Crompton, Edward H. Watkinson and William J. Wood; former secretaries: J. B. Whipple, Edward W. Coleman, Drayton Hillyer, George H. Clark, Edward W. Crompton, Elisha Colt, William H. Buel and William J. Wood; former managers: J. B. Whipple, Alfred Smith, Samuel W. Collins, Elisha Colt, Edward W. Crompton and William J. Wood; former superintendents: Samuel W. Collins (from 1845), Elisha K. Root, Isaac Osgood, Charles Blair and Charles H. Root.

WATERBURY is one of Connecticut's representative cities, and has long been noted as the State's manufacturing centre of New England.

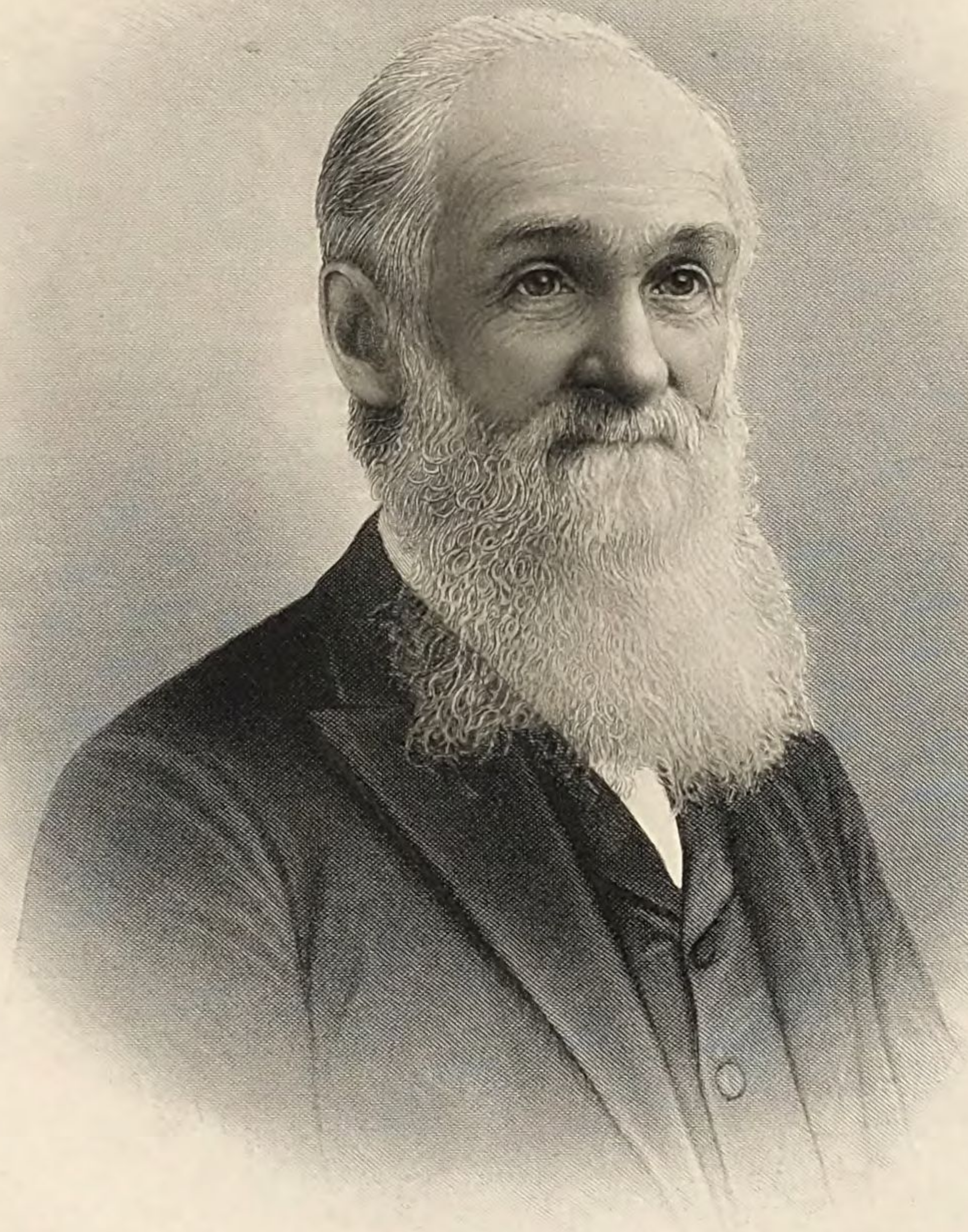
WATERBURY is widely and favorably known as a manufacturing centre, and here are located some of the leading woolen and silk manufactories of the state.

WATERBURY is the centre of the lock and hardware-manufacture of New England, the Curtis Company and the Russell and Erwin Companies being among the most extensive establishments of their kind in this country. The American Hosiery Company and the New Britain Knitting Company are also located here. John B. Curtis, president.

THE J. H. WILLIAMS COMPANY OF GLASTONBURY.*—In connection with Ezekiel Williams, Jr., one of founders of insurance in Hartford, mention was made of the long-continued prominence in professional and business circles of the descendants of Robert Williams, of Roxbury, Mass., his emigrant ancestor. James Baker Williams, great-grandson of Rev. Solomon Williams, of Lebanon, Conn., through a long, useful and honorable career, has contributed his full share toward upholding the reputation of the stock. He was born in Lebanon, February 2, 1818. In the spring of 1827 his father, Solomon Williams, moved to East Hartford, whither other branches of the family had preceded him. In the spring of 1834, equipped with a fair education for the time, the son entered as clerk the country store of F. and H. C. Woodbridge, of Manchester. A small drug department belonged to the outfit, which was soon placed in charge of James B. His duties held him at the counter from an early hour till nine o'clock in the evening. Yet with a strong desire for knowledge and keen sense of its value, he made it a rule to study from nine till eleven at night, and from five in the morning till called to work. His part in compounding drugs called his special attention to chemical and other scientific books. The line of effort into which he was drawn and the success that followed him are traceable, in no small degree, to the early and conscientious improvement of every spare moment.

In 1835 he formed a partnership with the late C. G. Keeney, of Manchester. In two years he sold out his interest, retaining the drug department. His brother, George W. Williams, now joined him, while another brother, Thomas, lent his name and part of the capital. At once they began to make various articles which apothecaries carry, and also added shoe-blackening and shaving-soap. The attractions, mainly

* By P. Henry Woodward.



J. S. B. Williams

of a stream and dam affording about twenty-five horse-power, drew the concern to Glastonbury in 1847. About three years later his brother, William S. Williams, joined him. Thence for a third of a century the establishment was known as James B. Williams & Co. Their shaving-soap, for private use and for barbers, early won a reputation which has never waned. They also make toilet-soaps, special grades for silk and woolen manufacturers, and a soap-powder called "ivorine." With all this work in progress, the various departments are as clean and sweet as the traditional New England kitchen.

Since the removal to Glastonbury the floorage has increased from less than three thousand to ninety thousand square feet. Year by year, too, production has expanded, although in 1890 a fire consumed three large buildings, involving an estimated loss of \$90,000. These were at once replaced.

In 1885 the business was incorporated under the general law of Connecticut as the J. B. Williams Company, with a capital of \$100,000. The surplus is large. The products of the factory have long been sold in every part of the United States. Large quantities are shipped to London for distribution through Europe. The house ships directly to Australia, the East Indies, Mexico and the South American States. During the half century hand processes have been largely superseded by machinery, no small part of which has been invented by David W. Williams and other members of the company. The little stream so attractive in 1847 has been supplemented by steam to the extent of one hundred and fifty horse-power. It is believed that from the beginning the concern has never permanently lost a customer except through death or retirement from business. Such a fact is more expressive than pages of rhetoric.

The factory is located in Glastonbury, about seven miles from Hartford, and one-half mile from the Hartford system of electric railways. Around it has sprung up a lovely village noted for the sobriety, intelligence and excellent character of its inhabitants. As one looks upon the elegant homes that adorn the landscape and upon other tokens of abounding prosperity, he cannot help tracing the transformation to the stern resolve of the boy who gave his nights to study when these fields were still pastures.

Officers of the company are James B. Williams, president; his son, David W. Williams, vice-president; George G. Williams, treasurer; Bernard T. Williams, secretary; and Samuel H. Williams, chemist.

William S. Williams, brother of James B., with whom he had been associated in business nearly forty-five years, passed away suddenly in 1894, widely respected and deeply lamented.

CHENEY BROTHERS, silk manufacturers, South Manchester and Hartford. The names of Cheney Brothers and Manchester are inseparably connected. The town would not be what it is to-day but for them. Their enterprise and business ability has not only placed them among the most important manufacturers of America, but has made Manchester known where it would otherwise have been unheard of, and has given both its social and its business life a character that would be otherwise wanting.

The Cheney Brothers' silk plant at South Manchester and Hartford is one of the best and largest in the world. This great and wonderful enterprise was founded in 1836 by Frank and Ralph Cheney, and the business has always remained in the hands of their families. The business was begun in a small way and continued to prosper year by year until it has become the largest industry in the state and one of the largest of its kind in the world. The Cheney Brothers were among the pioneers

in the silk industry in this country, and no other name is more clearly identified with that business, or has attained a greater national importance in connection with the silk business than theirs at the present time.

The Cheney family have been residents of the town of Manchester for more than one hundred years, and their love for the place has never waned. A visit to South Manchester would demonstrate to the minds of the most skeptical this fact, as the visitor will see one of the prettiest villages in this country. The dwellings are modern structures and always look neat and thrifty. They are to a large extent owned either by the Cheney Brothers or by the more industrious employees. There is probably no body of working people in this country that wear a more cheerful look and are more prosperous, on the whole, than those in the employ of Cheney Brothers. These benevolent managers encourage their employees to be thrifty and enjoy their own homes. They sell to them on very generous and desirable terms the plot of ground on which to build, and if necessary aid them in the construction of their houses; the only restrictions being that no liquor shall be sold on the premises or nuisance of any kind maintained. This, of course, has the desired effect to not only make it respectable and quiet, but adds to the value of each purchase. The houses are mostly single cottages, with large lawns in front and suitable gardens in the rear. The buildings are always kept neat and clean, and fences are abolished, which gives the fronts of the buildings a uniform appearance that is pleasing to the eye.

The silk industry in this country has had a wonderful growth, and to-day it is in the front rank of our most important and leading industries. According to the census of 1860 the product of silk goods in this country was \$1,800,000, and in 1890 it had increased to the value \$37,200,000. The plant of Cheney Brothers, at South Manchester, covers about twelve hundred acres of ground. This, of course, embraces the various mill sites, the many dwellings owned by the company, the farm, and all the other land needed in connection with this great enterprise. There are three groups of mills in South Manchester, each a large plant in itself. They also own and operate a large mill in the city of Hartford. This latter factory, which is an imposing brick structure, is set apart for the manufacture of ribbons. The material, however, is prepared at South Manchester, and taken to Hartford for weaving and finishing. The floor area of the several mills is sixteen and a half acres. The Cheney Brothers first began making sewing-silk from imported raw material. They were incorporated under the above caption in 1854, with a capital of \$1,000,000. In 1865 they began making experiments in making spun silk, which has led to the great development of the industry. They give employment in the mills and in other work to something like twenty-five hundred hands during the busy season, about eight hundred of whom occupy houses owned by the company. The mills are equipped with innumerable machines of almost human cleverness, and all of the latest devices of economy and skill are sure of adoption by this progressive concern. Many of the machines in use in their several plants are wonders of human ingenuity and skill, and are capable of producing the most difficult and complicated results. Seven large engines, aggregating twenty-four hundred horse-power, are required to drive the machinery in these works.

The products of the Cheney mills include a great variety of manufactured silk, and they consume great quantities of the raw material, which they import direct from the foreign markets of Europe and the Orient. They supply other silk mills with large quantities of "thrown" silk and "spun" silk. Their own products embrace a long list of articles and include principally pongees and

florentines, in plain, figured and printed, for dress goods and decorations; satins, twills and armures, in printed and solid colors; black and colored grosgrains; velvets, plushes and upholsterers' materials, drapery fabrics and curtains, handkerchiefs, mufflers and flags, ribbons in grosgrain, satin and fancy edges; also trams, organzine and fine-spun silk for manufacturers' use, and, in fact, silk or ribbon for any special purpose or design will be made to order. No better class of silk goods, in quality and finish, are produced than at the mills of Cheney Brothers. Their goods find a market in any part of the United States; they have taken the place of imported goods to a great extent, and the importance and value of the Cheney products are becoming more and more apparent every year, and are now recognized as "standard" goods. Silks used to be recognized as a luxury, which people in moderate circumstances were seldom allowed to enjoy; but in the development of the business the silk manufacturers have now brought this luxury within the reach of a very large portion of the population of this country, and none have done more, and few as much, toward this end as the Cheney Brothers.

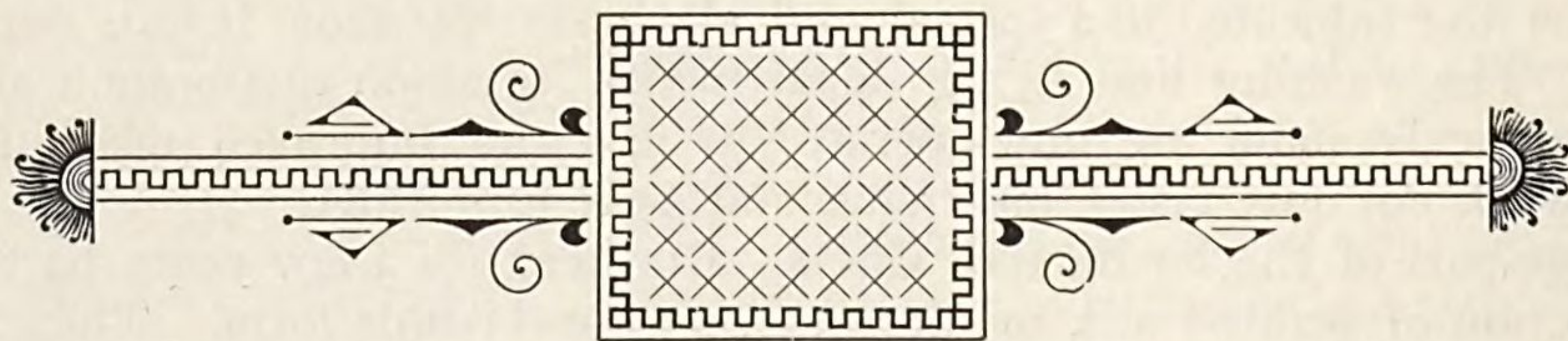
For a long time only reeled-silk and silk-fibre were used in this country. Now, however, spun-silk has come to take a very important place in the manufacture of silk goods, and it was first introduced and made use of by Cheney Brothers with success. A few years ago the people of this country were large consumers of the imported fabrics of Europe and the Orient, obtained at high prices, but to-day the American goods, at a much lower figure and equally as good in quality and finish, are in general use; and this state of affairs has been brought about, to a great extent, by the enterprise and superior business ability of the Cheneys. The utmost care is taken in each and every department of their works to produce the finest textures possible in make-up, color and finish. The constant study of dyes has to be maintained, and a considerable laboratory kept in use to test them, and a corps of competent chemists to prepare the baths for the coloring operation. Then again, the goods have to undergo a peculiar treatment in order to prepare them to receive the colors. Pure and clean water is most essential to the complete success of this work. Any impurity in the water is liable to betray itself in the defective shade or lustre of the dyed fabrics. To make sure of the purest article possible, the Cheney Brothers have constructed a large reservoir, securing sixty million gallons from a mountain stream of especially pure, clear and choice water, and thereby have not only obtained a sufficient quantity for their manufacturing purposes, but for fire purposes and household use, it having been distributed in pipes about the town. Even this water, used in the mills, is first subjected to a special and elaborate filtration before being used in the dyes. The washing and dyeing departments, in which this branch of the work was once done by hand, are now operated by new and improved machinery, which does the work not only faster, but better and more uniformly.

A large part of the business of Cheney Brothers, for a few years past, has been the production of printed silk in almost every conceivable form. They first developed this branch of industry in this country, and have succeeded in bringing it to a completeness altogether unknown abroad. In the old country much of this kind of work is done by hand, and is naturally a slow and tedious process. On the other hand, at the Cheney mills elaborate and beautiful machinery is used, so skillfully contrived and constructed that a dozen different colors can be put upon the same piece of goods in one process. The printing is, of course, done in an infinite variety of designs. In some cases they are simple, and again they may be very difficult and complicated. First, the design itself is drawn by the artist. It may be an original idea, or a combination of other patterns, a copy of some animal or flower, the figure

of some prominent individual of the past or present, or some clever reproduction or adaptation of a novelty : whatever it may be, it is drawn out in detail. It is then magnified by the "magic-lantern" process to the size desired. The reproduction as thrown upon the paper is copied, and the finished pattern is then passed to the engraver, and carefully engraved and etched upon the copper cylinders used in the printing. The rolls are then put in position on the machine and the cloth run through, and the product is complete. In some cases, however, the printing of the picture is not done on the finished surface, but upon the warp ; then the weft is run across in plain threads, and the pattern is preserved ; sometimes it is softened and made indistinct by this ingenious process. So it will be seen that skilled labor must predominate in a large concern like Cheney Brothers. Their reputation and goods are thoroughly established, and it is a conceded fact that no better silk goods are produced in the world than those at the Cheney mills. Their display at the World's Fair at Chicago was a marvel of ingenuity, and fully sustained the reputation already gained.

The Cheney Brothers themselves live at South Manchester, where they have magnificent homes, and consequently they take great pride in the town. Cheney Hall, a substantial brick structure built and maintained by them, was opened in 1860. This hall, with light and heat, is furnished free for all respectable entertainments. A free public library is also maintained. They also built and maintained a branch railroad, running from South Manchester to connect with the New York and New England road.

The business has been conducted by members of the family through the different generations, after a thorough apprenticeship, and often a college education. Col. Frank W. Cheney has been treasurer of the company for over thirty years. The management is as follows: President, Knight D. Cheney; vice-president, Frank D. Cheney, Jr.; treasurer, Frank W. Cheney. Directors: Frank W. Cheney, Knight D. Cheney, James W. Cheney, John S. Cheney, Harry G. Cheney, Frank D. Cheney, Jr., and Richard O. Cheney.



CHAPTER XCV.

MILL SITES AND MANUFACTORIES OF MONTVILLE, SINCE ITS INCORPORATION IN 1786.

BY C. W. COMSTOCK.

THE only mills in operation within the present boundary of this town at the time of its incorporation were four grist mills, seven saw mills, and one fulling mill. The grist mills were owned by Ezekiel Fox, Jonathan Minard, George Latimer, and Levi Lester. The saw mills by Ezekiel Fox, Atwell Chapel, Deshon, Wheat & Hallam, Matthew Leffingwell, George and Jonathan Latimer, George B. Dolbease, and Joshua Raymond. The fulling mill was owned and operated by Joseph Smith.

The present number of mills and manufactories now owned and in operation in the town are sixteen, consisting of three woolen mills, five cotton mills, three grist mills, three saw mills, and two shingle mills.

The most important stream, and on which are located most of the manufactories, is the Oxoboxo. This stream of water takes its rise in the northwest corner of the town, and near to "Gardner Lake," in Salem. It was by the early settlers of the town called "Saw-mill brook," and down to the year 1825. About this date, Lorenzo Dow gave to the pond at the head of the stream the name "Oxoboxo Pond." This name is an epitome of the original Indian name "Opsobosket."

The general course of this stream, from its source to its outlet, is south-easterly, and runs into a cove, which makes an arm of the Thames River, which cove was called by the Indians Massapeag, afterwards by the white settlers "Baker's Cove," from Alexander Baker, who owned the land along the south and west banks of the cove. At the present time it is called Haughton's Cove, from Sampson Haughton and his descendants who, for many years, owned a large farm at the head of the cove, with a mill site.

Near the outlet of the Oxoboxo stream are the dye works of the late William G. Johnson, which at the present time is owned by Henry C. Johnson, a son of William G., the projector of the plant.

Upon this site the first saw mill on the stream was erected, by the direction of John Winthrop, about the year 1653. A short time after the erection of the saw mill by Winthrop, he started a "bloomery," as it was then termed, for the smelting of iron from "bog ore." These bogs were found along the coast from Maine to Maryland. Water filtering through the neighboring hills brought down into the pond and marshes large quantities of iron in solution, and deposited the same at the bottom of ponds and streams of water, along with vegetable mould in soft, spongy masses,

which went by the name of bog-iron-ore. The primitive bloomery was merely a hole in the ground in which charcoal was burned by the aid of a bellows made from goat skin, the iron ore being added to the fire in small quantities.

The one built here was, it appears, an improvement upon the primitive ones used in India from the most ancient times. This consisted of a furnace and a forge. These iron works, however, appear to have been soon abandoned, and nothing more was done at the "Old Forge" for nearly one hundred years.

The next mention of these iron works is in the year 1750, when it was deeded by Benjamin Alford to Benjamin McCall; and it is generally supposed that at that time the business was started up again. The land records of Montville show that this property was owned by one Jeremiah Vallet in 1788, who sold the same to George Williams. The same year George Williams conveyed to Amaziah Watson a parcel of land, containing ten acres, "with two-thirds of the spot where the late iron works were erected." Watson built a small shop, where the old saw-mill stood, a short distance above the "Old Forge," but it was never occupied by him, as he died soon after its completion.

By the last will of Watson, this property was given to his wife, Mary, who afterwards married Andrew Tracy, of Norwich.

In 1798, John and Arthur Scholfield obtained a lease of the water privilege and the shop, for fourteen years, from the owner, Mary Tracy. Messrs. Scholfield then set up and put in operation the first woolen machinery for the manufacture of cloth, by water-power, started in the state of Connecticut. Arthur Scholfield remained here a few years, with his brother, John, and then removed to Pittsfield, Mass., where, in 1808, he manufactured a piece of broadcloth, containing thirteen yards, which was presented to James Madison, and from which his inaugural suit was made.

After the expiration of Mr. Scholfield's lease in 1812, the woolen business was carried on for a while by John Rogers Comstock. After his death, in 1821, his father, Nathan Comstock, and his brother, Nathan Comstock, Jr., came into the possession of the property.

Mr. William G. Johnson purchased of Nathan Comstock, Jr., in 1834. In the year 1823, Nathan Comstock sold his interest to his son, Nathan Comstock, Jr., who soon after started an oil mill on the site of the old saw-mill, and carried on the business until he sold out to William G. Johnson. Mr. Johnson immediately went to work, building a dye-wood mill, which was soon in operation. In 1848, the business was enlarged, by the erection of a large building for extracting the dye from the wood by means of steam. Mr. Johnson, being a man of remarkable business capacity, and bending his whole energy to the business, was enabled in a few years to pronounce his undertaking a success. After the death of Mr. Johnson, January 15, 1892, this property passed to his son, Henry C. Johnson, by purchase.

The second mill on the stream is a cotton factory belonging to and operated by the Uncasville Manufacturing Company, a joint stock corporation formed under the laws of this state in 1848, with a capital of fifty thousand dollars, which was increased to seventy-five thousand dollars in 1852. George R. Lewis was its first president and Charles A. Lewis its secretary.

On the site of the present mill Levi Lester, in 1794, built and put in operation a grist mill. In 1823 Peter Richards and his son Henry A. Richards, of New London, purchased of Levi Lester the grist mill and water privilege, and also a tract of land adjoining, of George Williams, and erected the present mill building. Messrs. Richards failing in business, the premises came into the possession of Charles A. and George R. Lewis in 1830, since which time the business has been carried on

successfully. In the summer of 1880 a new steam engine and boiler was put into a building erected for the purpose, the power being connected with that of the main mill, enabling the company to increase the amount of their production, and to run their mill at such times when short of water-power. After the death of George R. Lewis, his son James managed the business for awhile, and at his death the company was re-organized, and is now run by a new set of managers. A large weave room has been erected, the steam power increased, and the business is at the present time in a flourishing condition.

The village of Uncasville is pleasantly located, it being only a few minutes' walk to the railroad station and steamboat landing. The village contains a commodious Methodist church and a large graded school-house, three thriving grocery stores, to supply the needs of the inhabitants; a post-office, meat market, and a blacksmith shop and livery stable.

The Pequot Mills are the next in order as we pass up the stream. Here are two mills, one built of stone, the other a wooden structure, and several tenement houses for the accommodation of the employees.

On the site of the wooden building formerly stood an oil mill, which was first built by John and David Congdon, about the year 1803. Previous to the erection of the oil mill, there was a sawmill, to which this water privilege was first applied. These premises were conveyed to Giles Turner by John Congdon, in 1822, and by Giles Turner to his son-in-law, Albert G. Darrow, in 1837. Mr. Darrow run the oil mill until near the time he sold out to Messrs. Norton Brothers and Hiram Crosby, of Norwich, in 1860. Soon after the purchase, the oil-mill building was enlarged and the stone mill built and all fitted up for the manufacture of woolen goods. At the time of the great freshet, in the summer of 1877, the dam was carried away, and soon after a new and substantial stone structure was built, several feet higher than the old dam, giving a fall of forty-six feet.

In 1877 this property passed into the possession of Henry B. Norton and Lorenzo Blackstone, of Norwich. A considerable change was made, the woolen machinery was taken out, and machinery for working cotton was put in its place.

The mill is now in successful operation in the manufacture of print-cloth and lawns. It contains 238 looms, and 8,064 spindles, and employs about 130 hands. The mill turns out from 60,000 to 70,000 yards each week, using, on an average, 1150 bales of cotton each year. A new engine of the capacity of 150 horse-power was put into the mill in 1881.

THE THAMES WOOLEN MILL is the fourth in order in passing up the stream. This water privilege was first developed by Gideon Palmer, and by him sold to Col. Frank B. Loomis in 1846. Mr. Loomis the same year built the stone mill which is now standing on the site, and built a few tenement houses. Machinery was put into the mill and started up in the manufacture of woolen cloths. In 1854 Mr. Loomis sold out to Orrin F. Smith, who carried on the business until 1861, when it again came into the possession of Colonel Loomis. In 1862 this property was purchased by the Thames Woolen Company. The individuals composing the company were Andrew M. Farnum, of East Hartford, William W. Billings and Isaac L. Hayden, of Windsor, and Richard G. Hooper, of Glastonbury. The same year, Hart Tolcott, of Glastonbury, became connected with the firm, but sold out his interest in 1863 to the other members of the firm.

On the 13th day of May, 1864, Andrew M. Farnham sold out to Isaac L. Hayden, who also sold to Andrew J. Wood, of Brooklyn, N. Y. W. W. Billings sold his interest in October, 1864, to Isaac L. Hayden.

The business was continued by this firm until August, 1875, when a joint-stock company was formed, with a capital of \$60,000. Andrew J. Wood, president; Seymour J. Strong, treasurer; and R. G. Hooper, manager.

In March, 1877, an assignment was made by the Thames Woolen Company of all their property to Freeman M. Brown, of Hartford, in trust for the benefit of its creditors. The bankrupt estate was settled in the Probate Court, and the property sold to Richard G. Hooper, who, in January, 1878, formed a limited partnership with Aaron Shaw, of Philadelphia; R. G. Hooper being general partner and Aaron Shaw special partner, under the style and name of R. G. Hooper & Company. This firm continued the business until the death of R. G. Hooper in 1888. Mr. Shaw bought out Mr. Hooper's heirs' interest, and carried on the business in his own name until his death in 1892, when the whole property passed into the hands of James Freeland. New machinery has been added from time to time, and the present firm of the Montville Woolen Company are now running day and night. Several new dwellings are being erected, and the business appears to be prospering. This mill contains four sets of machinery operating the broad loom.

PALMER BROTHERS' BED-QUILT MILLS are the next in order, and consist of two stone structures, connected with each other, and run by both steam and water-power. These mills stand, one on the site of the old oil-mill, built by Elder Reuben Palmer in 1798; the other stands on the opposite side of the stream.

The first to occupy this water-privilege was William Hill, who established here a fulling-mill. His business was to take the cloth as it came from the looms of the house-women, who in those days spun and wove the cloth used in the family, and color, full and press the same for use. Mr. Hill commenced operations here about 1770 or '72. The privilege was owned by Jeremiah Rogers, and leased to Mr. Hill for a term of years. In 1797 Elder Reuben Palmer purchased the privilege of Jeremiah Rogers, and converted the old building into an oil-mill. A grist-mill was added a short time previous to 1814. The grist-mill was afterwards converted into a distillery, which was run by Elder Palmer and others until it was sold to Gideon Palmer in 1820. The distillery was soon abandoned, and only the oil business carried on. In 1850 Elisha H. Palmer and others bought the privilege, together with the oil-mill, and commenced the manufacture of cotton rope, twine, batts, etc. The business was continued until the present owners came in possession. E. H. Palmer in 1866 built the stone mill on the north side of the stream, which has been enlarged by Palmer Brothers, and another stone building erected on the south side of the stream. The business increased yearly for several years. New improvements and inventions enabled them to compete with other firms in the manufacture of cotton and down bed-quilts and comfortables. The business is still prospering.

The sixth manufacturing establishment on the Oxoboxo stream is the paper mill now carried on in the interest of the estate of Carmichael Robertson. This privilege was first utilized by the erection of a dam by Gideon Palmer in 1852, used as a reservoir. In 1859 the entire privilege, together with such water-rights and flowage as were possessed by Mr. Palmer at his decease, was sold by the executor of his estate to the Montville Paper Company, a joint-stock corporation, of which Oliver Woodworth was president. In 1865 the company sold to John and Carmichael Robertson and James Bingham. In 1866 Carmichael Robertson bought out the interest of the others, and he continued the business until his death in 1889, since which time the business has been carried on quite successfully by his three sons, Alexander C., Tryon E. and William R. Robertson, in the interest and behalf of the estate. Carmichael Robertson was a very successful manager of business, and in 1875 purchased the Rockland Paper Mill, in which he was a large stockholder.

Alfred Hurlbut was the owner and proprietor of a small cotton, twine and rope mill, located next above C. M. Robertson's paper mill. This mill was first erected in 1866. Mr. Hurlbut did a prosperous business here until the loss of the mill by fire in 1874, with all its contents. The next year Mr. Hurlbut rebuilt, and continued the business with success until the entire mill was again burned on the 21st day of December, 1894. The privilege has lately been purchased by the Lindstrom Cycle Company, who propose to erect a building for the manufacture of bicycles.

THE ROCKLAND PAPER MILL, now owned by the estate of Carmichael Robertson, was first built of wood in 1850 by John W. Smith, who at that time was running a small cotton batting factory on the same premises, a little south of the site of the present paper mill.

Mr. Smith, after the building was erected, leased the building and water privilege to Enoch B. Culver for the term of five years. Mr. Smith became involved in the construction of the mill and was obliged to sell it. In 1851 a deed of warranty was executed by Mr. Smith, conveying the mill and water privilege to the lessee, E. B. Culver.

On the 24th day of April, 1852, Enoch B. Culver made an assignment of all his property to Benjamin Durfee, of Norwich, in trust for the benefit of his creditors. This was in November following sold by the trustee to Babcock, Dubuisson & Hall, of New York city, by whom the paper business was carried on until 1857, when it was sold to the Rockland Company, of which David Smith, of Norwich, was president.

In 1868 the mill was totally destroyed by fire. Soon after the fire the original stockholders sold their stock in the concern to Norman B. Church, who transferred about one-half of the stock to other parties as stockholders. The mill was soon after rebuilt with stone and put in operation. This company was not any more successful than its predecessor, and after the death of Mr. Church, in 1873, it was found to be in failing circumstances, and in 1874 the company made an assignment to Charles W. Butler, of New London.

On the nineteenth day of July, 1875, the trustees sold at public auction the equity of redemption in the entire property to Carmichael Robertson, for the sum of \$1.

This mill from its start to the purchase by Mr. Robertson was used in the production of book and news paper. Since which time manilla paper has been manufactured. Mr. Robertson put in a new sixty-eight-inch cylinder paper-machine. The mill contains three paper engines of four hundred pounds each, and since it has been owned by C. M. Robertson it has been a success. Within the past year the estate of C. M. Robertson has erected a new building on the west side of the paper mill, thirty by one hundred feet, and leased the same to the Rex Box Company, with power from the paper mill wheel. This company is now in operation in the manufacture of paper boxes.

Near the site of the present Rockland Paper Mill there formerly stood an old mill supposed to have been erected by Joseph Smith, about 1780, and used by him as a fulling mill. It was afterwards converted into a cotton batting mill and operated by Abel Smith, a son of Joseph Smith. After the death of Abel Smith, his son, John W. Smith, continued the business until he sold out to E. B. Culver. After it came into the possession of Mr. Robertson the old mill was burned.

THE FOX MILLS, so called, are of ancient origin, and formerly consisted of a saw-mill only. The site is probably the second one which was occupied on the Oxoboxo stream. Samuel Fox was the first to occupy this water privilege. He

owned about fifteen hundred acres of land in the vicinity, and built the saw-mill about the year 1700. The grist-mill was erected by Ezekiel Fox, to whom the property was given by the will of his father, Samuel Fox. Ezekiel Fox in his last will gave it to his grandson, Ezekiel Fox, who occupied it a few years and then sold it to Isaac Turner in 1805. These premises remained in the Fox family over one hundred years.

In the year 1811 Isaac Turner conveyed the same to Elder Reuben Palmer. In 1813 Elder Palmer leased to Jared S. Rogers the privilege to use the water-power for a machine-shop, and a small piece of land on which to erect a building.

Mr. Rogers carried on the machine business for only a few years, and at his death, in 1816, the business was sold out. The manufacture of the old wooden wheel clock was about this time carried on in the shop built by Mr. Rogers. Reuben Palmer, Jr., in 1817 purchased the mills and water privileges of his father, Elder Reuben Palmer. The machine shop was converted into a cotton factory, which was afterwards burned. The grist-mill and saw-mill was run for many years by Reuben Palmer, Jr. In 1837 Henry Wheeler came in possession of the site of the old cotton factory, put up a new building and built a new dwelling house on the premises. Mr. Wheeler and his sons Wm. H. and Edwin C. Wheeler continued the cotton business here until 1871, when the whole property came into the possession of the Rockland Paper Company, and was sold with the other Rockland paper-mill to Carmichael Robertson in 1875. During the year 1887 he raised the dam four feet, and built a stone paper-mill at this privilege.

THE OAKDALE MILL was built by James Bingham in 1866, and occupied by him as a paper-mill until April 1, 1880, at which time it came into the possession of Palmer Brothers, who put therein machinery for the manufacture of bed quilts. They built several new tenement houses and a large addition to the stone mill. About 1890 they removed the machinery to their mill at Fitchville. Since which time it has been used by the Massasoit Manufacturing Company in the manufacture of cotton wick. This water privilege was first purchased by Charles F. Scholfield, who sold it to James Bingham in 1866.

The next mill above the Oakdale mill was built by Charles F. Scholfield in 1868, and for several years was used in the manufacture of cotton twine. In 1878 Mr. Scholfield put in woolen machinery and has since continued to make flannels and kersymere cloth and woolen yarn. He has also made some spun cotton as the demand warranted. He also makes wool batts and does custom roll carding.

SCHOLFIELD SATINETT FACTORY, situated on the Oxoboxo stream next above, is the oldest woolen establishment on the stream. A clothier mill was put in operation here about 1790, and carried on by Joseph Otis. Afterwards, in 1808, Elijah Beemis was engaged in the same business at this place. This property was first owned by Daniel F. Raymond, who erected a saw-mill. In 1814 Mr. Raymond sold the privilege to John Scholfield, who enlarged the old building and put in machinery for the manufacture of woolen cloth. At this mill was made by Thomas Scholfield, son of John Scholfield, the first piece of satinett manufactured in this state. This mill property has been in the Scholfield name since its first purchase by John Scholfield. The present owner, B. F. Scholfield, grandson of John, still continues the manufacture of Scholfield's celebrated satinett.

THE WOOLEN FACTORY, late owned by Deacon Harry Vincent, deceased, is the first establishment below the reservoir, "Oxoboxo Pond." A saw-mill was first built here by Atwell Chapel, then owner of the water privilege, in 1795. In the year 1827 Joshua Baker, Sherwood Raymond, Caleb Baker and Clark Bissel erected a

building, and started an oil-mill. It did not prove to be a very profitable business, and was soon abandoned. After the death of Atwell Chapel in 1811, this property came into the possession of Joshua Baker, by heirship of his wife, who was a daughter of Atwell Chapel. In the year 1829 Joshua Baker sold this water privilege, together with about ten acres of land connected therewith, to Deacon Harry Vincent, who enlarged the old oil building, and put in machinery for carding rolls, spinning yarn and the manufacture of flannels and cassimeres. At the first his family occupied a part of the mill as a residence. After living in this manner a few years, he built a dwelling near to the mill, and occupied it until his death in 1878.

By strict economy, close attention to his business and honorable dealing, he accumulated a sufficient amount of property to place him in comfortable circumstances. So great was his trust in Divine Providence, that he was emphatically opposed to availing himself of the popular modes of preventing loss to property from fire or other elements, and was never known to have suffered by either. After the death of Deacon Vincent and his wife (they having no children), the property by his last will was given to a nephew and niece, who soon after sold out to R. N. Parish. A portion of the old mill was taken down, and a modern saw-mill erected on the site. Mr. Parish still continues to manufacture timber and boards, and also shingles to order.

THE RESERVOIR, at the head of the Oxoboxo stream, now called Oxoboxo pond, covers an area of about one hundred and sixty acres of land. The dam has been raised from time to time since the original was built. In the earliest settlement of the town a small pond was raised here by a dam being made across the outlet, a few rods above the present structure, and a saw-mill set up. Afterwards a grist-mill was put in operation, in connection with the saw-mill, by Jonathan Mynard. This mill site and a portion of the land in the vicinity was conveyed, December 11, 1698, by Owasseco, then chief of the Mohegan tribe of Indians, to Thomas Stanton, of Stonington; and by him conveyed to James Harris, a land speculator, who sold it to Joseph Otis about 1700. Otis sold it to William Mynard, and Mynard left it, by heirship, to his son, Jonathan, who afterwards conveyed it, by deed of gift, to his son, Jonathan Mynard, Jr., and he to his son, Henry Mynard, and Henry Mynard conveyed it to Lorenzo Dow in 1825. It appears to have been in the Mynard family upward of one hundred years.

The distance from the reservoir dam to the outlet of the stream into Haughton's cove is one thousand eight hundred and sixty rods, or five and four-fifths miles. The surface of the water in the reservoir when full is about three hundred and fifty feet above tide-water in the River Thames, it being about twenty feet fall on an average to each mill privilege on the stream.

During the year 1826 Lorenzo Dow raised the dam at Oxoboxo pond about four feet, "thinking," as he said, "it would be for the interest of the mill-owners below." But Peter and Henry A. Richards, who were then owners of the mill property at Uncasville, considered that the raising of the dam was an infringement upon their rights, they claiming that it kept back the natural flow of the water, and was so intended by Mr. Dow when he raised the dam. So they, in 1827, brought a suit against Mr. Dow for damage by ponding the water. The case was brought to the County Court, and tried before it at New London, at which court the case was decided in favor of Mr. Dow. The plaintiffs then took an appeal to the Superior Court for New London county, and the case brought before a jury, which, when tried, the jury returned the following verdict: "In this case the jury find that the defendant is guilty in manner and form as the plaintiffs in their declaration have alleged, and therefore find for the plaintiffs to recover thirty dollars damages and their costs." The costs amounted to \$60.94.

After the first gate he raised his gate at the pond at the extreme height and let the water run with a great rushing, causing a very great freshet, which did considerable damage to the mill.

In 1820, Lorenzo Dow sold out the water right and privilege to Samuel Johnson and Elezekiah Goddard, of New London, who shortly after sold it to George R. Lewis.

The dam was raised seven feet, and a cotton-mill started at this place. Samuel Johnson was the superintendent of this cotton-mill. Several tenements were built, and the mill kept running for several years in connection with their mill at Montville. It was, however, in 1840 abandoned, the mill and tenement property was sold and transferred to Uncasville, since which time the water has been used as a reservoir, which is of very great benefit to the successful paper-mills all along the stream below.

One hundred years ago, in 1795, the assessed value of all the mill property on the "Stony brook," now the Oxoboxo, was only about \$2,000. The present value is about \$400,000, which is more than sixteen times greater than the value in 1820, and nearly equal to the assessed value of the whole town. At the present date the assessed value of the manufacturing interests in the town is very nearly one-half of the whole town assessment.

There are other small streams in the town of Montville, on which mills to a small extent are operated. In Chesterfield there is a grist and saw-mill owned by George Latimer, which has been used and run by the Latimer family more than one hundred and fifty years. There is also a small cotton-batting-mill in Chesterfield owned by Joseph M. Beckwith, but now still. A saw and grist-mill stands at the head of Houghton's cove on a stream of water called "Stony brook," now owned by Charles S. Johnson. Also a shingle-mill and grist-mill on the same brook at its mouth, owned by Wm. H. Palmer.





H. C. Wilcox

CHAPTER XCVI.

BIOGRAPHICAL.

HORACE C. WILCOX.

IN every progressive town there is usually one man, upon whose judgment and energy the community relies, in the initiation of public enterprises and in their safe and conservative management. This man, in the town of Meriden, Conn., was Horace C. Wilcox, the subject of this sketch. During his business career, it is safe to say, that no man was more closely identified with the manufacturing interests and financial institutions of that busy town, or was held more firmly in the love and esteem of his fellow-citizens. At the time of the incorporation of Meriden as a city in 1867, he was chosen alderman, and in 1875 and 1876 held the office of mayor. He was also a state senator in 1877, and his further promotion to public office, with which his fellow-citizens would have been glad to honor him, found its only check in his own disinclination to desert the paths of a business career for the uncertain and precarious by-ways of political life.

Mr. Wilcox was the son of Elijah Bacon Wilcox, a farmer in Westfield parish, of the town of Middletown, Conn., and was born in that parish January 24, 1824. He was educated in the public schools of his native town, and until the age of twenty-one remained at home assisting his father on his farm. Having reached his majority, he engaged in the business of peddling tin-ware, and continued two years in that occupation. In 1850, he became a travelling salesman for James Frary, a manufacturer of Britannia ware, and later for William Lyman and John Munson, of Wallingford, and I. C. Lewis, of Meriden, in the same line of goods. Having become thoroughly identified with the Britannia manufacture and its selling markets, in 1852, he associated himself with his brother, Dennis Wilcox, and his former employers, and organized the Meriden Britannia Company, of which he was made secretary and treasurer. In 1865, he was chosen president. This company early established itself on solid and permanent foundations, but very soon ceased the manufacture of Britannia and took up that of silver-plated ware and other kindred products, and is now the leading establishment of the kind in the world.

But his business sagacity and executive ability were not exhausted by the demands of the enterprise, of which he was president and manager. He was instrumental in founding many other large industries in his adopted town. He was president of the Wilcox & White Organ Company, director in the Meriden Silver Plate Company, the Manning & Bowman Company, the Meriden Saddlery and Leather Company, the Æolian Organ and Music Company of Meriden, the Meriden Street Railroad Company, the Rogers Brothers Company of Waterbury, Conn., the R. Wallace & Sons Company of Wallingford, the William Rogers & Son Company of Hartford, the Meriden Fire Insurance Company, the Home National Bank of Meri-

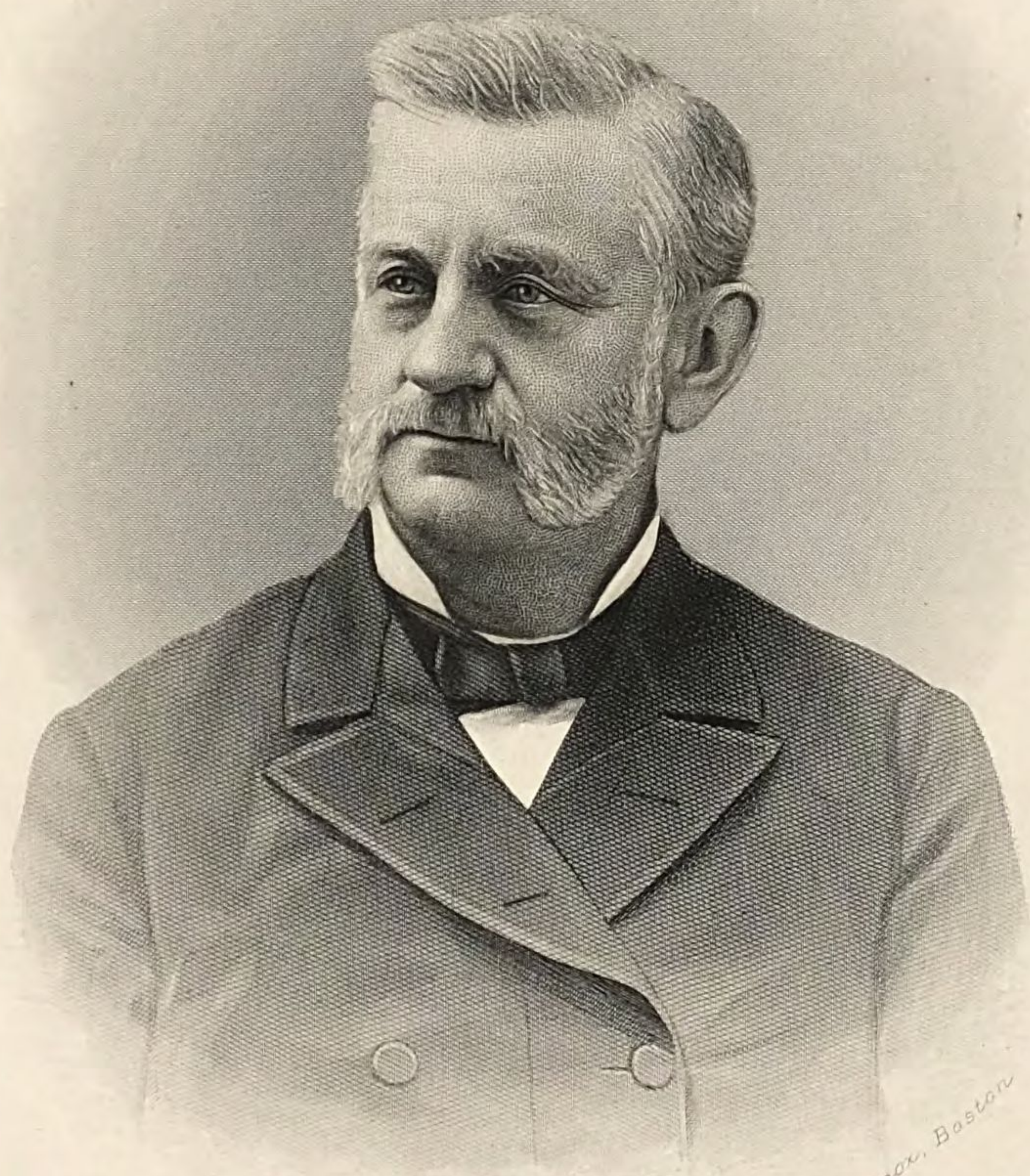
den, the Register and Publishing Company, of Meriden, the Walnut Grove Cemetery Association, and manager of the City Savings Bank. The most important enterprise in which he was engaged was the Meriden, Waterbury and Connecticut River Railroad Company, which he organized for the construction of a road from Meriden to the foot of the New York and New England road at Waterbury. In his shipment of goods to New York and New Haven road, he became satisfied that another outlet for both passengers and freight was essential to the proper development of the interests of Meriden, and in this enterprise, with a public spirit universally appreciated by his fellow-citizens he invested, with little expectation of adequate returns, more than a million dollars.

Perhaps more than any other enterprise outside of that under his immediate management, the Wilcox & White Organ Company excited his special interest. This company was organized by Henry Kirke White in 1877, with capital furnished by Mr. Wilcox and others, and is now at the full tide of prosperity, employing one hundred and sixty hands in meeting demands for its product, equal to, if not exceeding, its supply. Mr. White has been a manufacturer of organs nearly fifty years, and is still applying to the business his undiminished energies, supplemented by those of his three sons, James Henry, Edward Hollingsworth and Howard White. The present officers of the company are: James Henry White, president and treasurer; Fred. Eugene Bemis, secretary, and Howard White, superintendent. The Wilcox & White organ has an unbounded popularity, and the manufacture of this instrument is based on old patents with improvements made by Mr. Wilcox. One of the inventions of the company is the Pneumatic Symphony, or self-playing organ, which has the features of an ordinary organ and can be played as such. It is also supplied with a mechanism, by which perforated paper is made the medium for automatic playing. The success of this company has been almost unique and its organs may be found wherever love for music seeks an economical gratification.

Mr. Wilcox was married twice. On the 9th of August, 1849, he married Charlotte, daughter of Jabez Smith, of Middletown, and of her children two are living, Ella, the wife of William Prentiss Morgan, of San Francisco, the manager of the business of the Meriden Britannia Company on the Pacific coast, and George Horace, the successor of his father as president of the company, who married Nettie B. Curtis, of New Britain. He married for his second wife, May 31, 1865, Ellen, daughter of Edmund Parker, of Meriden, whose children are Dwight Parker and Florence Cornwall Wilcox. Mr. Wilcox died at his home in Meriden August 27, 1890.

GEORGE REDFIELD CURTIS.

THE subject of this sketch, George Redfield Curtis, was a descendant of John Curtis, who, with his mother, Elizabeth, and his brother, William, was among the first settlers of Stratford, Conn., in the year 1639. His line of descent is as follows: Widow Elizabeth, John, Thomas (who settled in Wallingford, Conn., in 1670, as an original planter), Nathaniel, Benjamin, Benjamin, Asahel. In 1670 the territory now comprised in Meriden was a part of Wallingford, and so for over two hundred years this branch of the Curtis family have lived practically in the same locality. George Redfield Curtis was the youngest child of Asahel Curtis and his wife, Mehitabel Redfield, of Clinton, Conn., through whom he was a lineal descendant of John Alden, of "Mayflower" fame. He was born in Meriden, Conn., on Christmas Day, December 25, 1825, and received his education principally in the



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Geo. R. Curtis

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schools of that place. He left school at the age of eighteen, and took a position in a dry-goods store in Middletown, Conn., where he remained four years. In 1847 he went to Rochester, N. Y., and for one year taught school in a town near that city. During the year 1848 he taught school in Meriden. In 1849 he became bookkeeper for Julius Pratt and Co., of Meriden, and continued with them until October, 1850, when he became teller of the Meriden Bank. On January 7, 1853, the month following its organization, he began work with the Meriden Britannia Company. The following April he was elected its treasurer, which position he held until his death; he was also for some time its secretary. For many years his life was bound up in the increasing interests of that company, and his labor and care contributed largely to the prosperity of the corporation. He was an ideal business man, and the financial affairs of the company were admirably conducted under his personal direction for many years, until advancing age and many outside interests made him gradually withdraw from their administration. He was always interested in whatever increased the prosperity of his native town, and his connection with the financial and manufacturing concerns of Meriden is indicated by the following list of offices held by him: He was treasurer of the Meriden Britannia Company; president of the Meriden Silver-plate Company, Meriden Horse-railroad Company and Meriden Gas-light Company; director in the Wilcox Silver-plate Company, Chapman Manufacturing Company, Manning, Bowman & Company, Home National Bank, Meriden Trust and Safe Deposit Company, R. Wallace & Sons Manufacturing Company of Wallingford, Rogers & Brother of Waterbury, and William Rogers Manufacturing Company of Hartford. He was trustee in the Meriden Savings Bank and the Curtis Home for Orphans and Old Ladies. Mr. Curtis married, May 22, 1855, Augusta Munson, youngest child of Jesse and Sophia (Talmadge) Munson, of Bradford, in western New York. Of this marriage were born three children—George Munson, Frederick Edgar (who died in childhood) and Agnes Deshon.

Mr. Curtis was a Republican in politics, but was never a politician, although he served his city as councilman and alderman, and finally as mayor during two terms, from 1879 to 1881. Of the social, domestic and religious characteristics of Mr. Curtis it is difficult to speak truthfully and justly without seeming over-eulogistic. Intellectual in his taste, and widely read in general and historical literature, he was a most genial and responsive companion and acquaintance. As a husband and father, he was most loving and indulgent; as a son most filial in his devotion to his mother, whose life almost reached a century of years. His religion seemed to be innate. An elderly person who had known him from his childhood says of him, "The peace of his natal Christmas-tide seemed to have influenced his mind and character." His interest in St. Andrew's Episcopal Church in Meriden and in the church at large was very strong. For years he represented his parish at the Diocesan Conventions, and in 1892 he was a delegate from Connecticut to the General Convention of the Protestant Episcopal Church held at Baltimore. For about forty-five years he was an officer of St. Andrew's Parish, and for many of them either senior or junior warden. As the years went on, and his means enlarged he gave to his beloved church munificently. In 1891 his sister, Mrs. Hallam, died and left the bulk of her property to build a church in a new parish in Meriden as a memorial to her husband. Mr. Curtis supplemented this gift largely, and two days before his death added to his generosity by presenting to the new parish a house and lot for a rectory. Mr. Curtis first became seriously ill at the time of the convention in Baltimore. A trip south in the early spring of 1893 failed to materially benefit him, and he died suddenly May 20, 1893, at his home in Meriden, aged sixty-seven years.

ISAAC CHAUNCEY LEWIS.

WILLIAM LEWIS, the first American ancestor of the subject of this sketch, came from London in the ship "Lion," and arrived in Boston September 16, 1632. He settled in Newtown, now Cambridge, Mass., and in the summer of 1636 was one of a company composed of a hundred men, women and children who became with their pastors, Rev. Thomas Hooker and Rev. Mr. Stow, the first settlers of Hartford, Conn. Cotton Mather designated the founders of Hartford as "a choice collection of men" from Braintree and its vicinity, in Essex county, England. It is presumed, therefore, that Essex county was the native place of William Lewis. His name is inscribed on the monument erected by the "Ancient Burying Ground Association of Hartford," in memory of the first settlers of that town, and in 1641 he was one of the Board of Selectmen. He removed to Farmington, Conn., before 1644, and in that year is mentioned as Sergeant "to train the men there." About 1659 he removed to Hadley, Mass., and was one of the founders of that town at the time of its incorporation in 1661. He was a Representative from Hadley in 1662 and 1663. In the latter part of 1663 the bounds were established between Hadley and Northampton, which located him in the latter town, which he represented in the legislature in 1664. During his residence in Hadley and Northampton he was largely intrusted with the administration of public affairs and is clearly shown by the records to have been a leading spirit in those communities. Before 1677 he returned to Farmington, and died in that town in August, 1683, his wife Felix having died in Hadley, April 17, 1671.

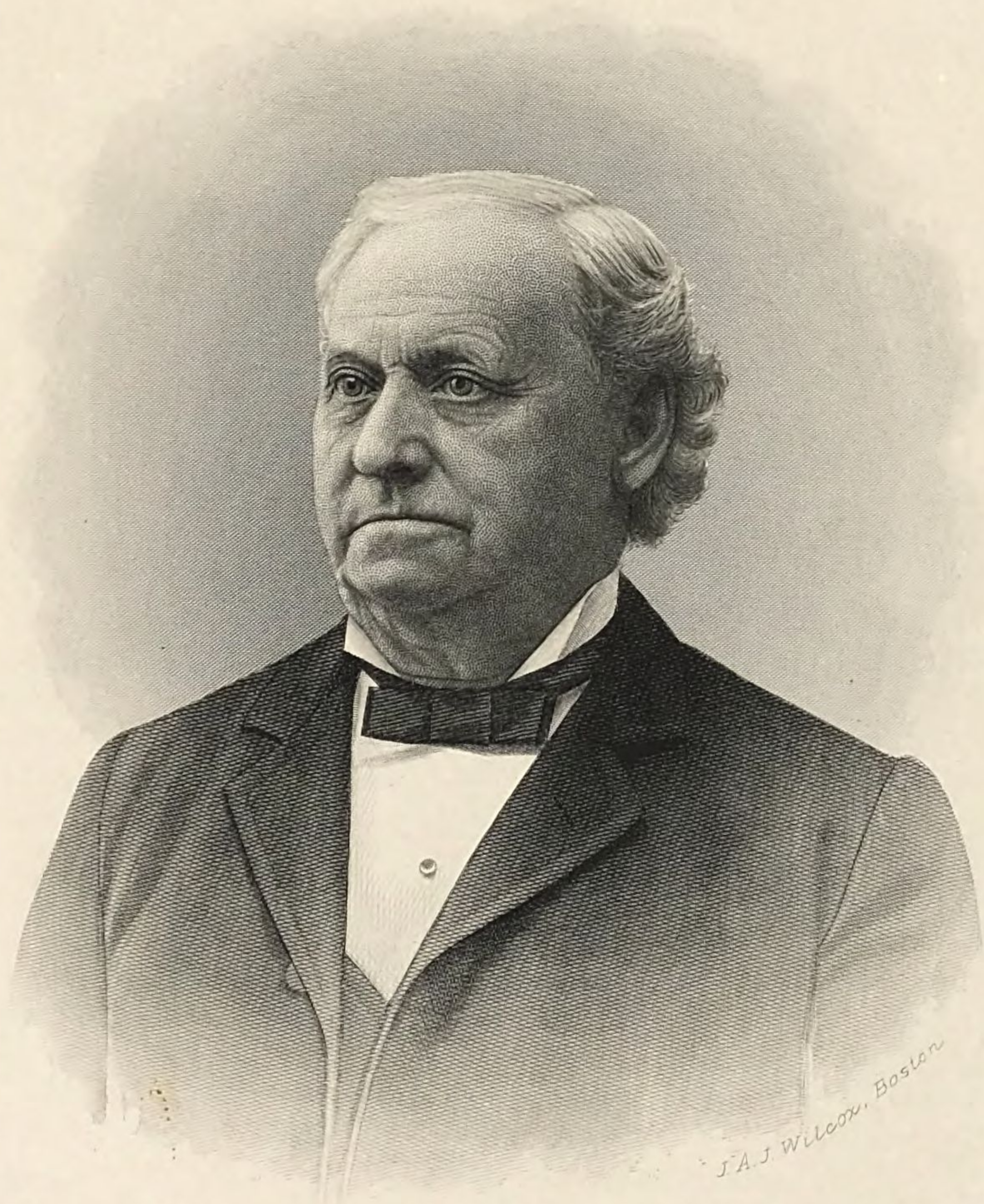
William Lewis, son of William and Felix Lewis, was born in England, and came to Boston with his father in 1632. In 1644 he resided in Farmington, and on the incorporation of that town in 1645 he was chosen the first recorder or clerk. He was twice married—first, in 1664, to Mary, daughter of William Hopkins, of Stratford, Conn., and second, to Mary, daughter of Ezekiel Cheever, the celebrated instructor of New Haven and of the Latin School in Boston. In 1657 he and Samuel Steele bought of the Indians, in behalf of a Farmington company, a tract of land sixteen miles square, supposed to be what is now the south part of Harwinton. His name appears in the records of Farmington, in almost every capacity, as that of a man who enjoyed the respect and confidence of his fellow-citizens. He died August 18, 1690, leaving a widow and thirteen children.

Ebenezer Lewis, son of the above William, born in Farmington, married Elizabeth, daughter of Capt. Nathaniel Merriman, of Wallingford, Conn., and settled in that town, where he died in 1709.

Caleb Lewis, son of Ebenezer and Elizabeth (Merriman) Lewis, was born in Wallingford and married Sarah (Curtis) Cook, daughter of Isaac Curtis and widow of Isaac Cook.

Ichabod Lewis, son of Caleb and Sarah (Curtis) (Cook) Lewis, born in Wallingford, was twice married, first to a wife named Sarah, and second to Esther (Umbertfield) Hall, and had, May 10, 1761, a son Jared, who married Rhoda Munson. Jared Lewis served in his youth as a private in the regiment of Colonel Canfield in the Revolutionary War, and was, later, a hotel-keeper in Wallingford. He was no exception to the rule that in those days the landlord of the inn was often the most influential man in the community. He was active in politics, and his advice was sought in all matters pertaining to public affairs.

Isaac Lewis, son of Jared and the father of the subject of this sketch, was born



Isaac C. Lewis

in Wallingford, and married Esther, daughter of Deodate and Mary (Parsons) Beaumont. He removed from Wallingford to Meriden, and there died in 1823, five years before the death of his wife. He was an inn-keeper in Meriden, and later a merchant and was a citizen held in the highest esteem by the community. He was chosen town clerk when Meriden was set off from Wallingford and incorporated as a town in 1806, and held that office until his death.

Isaac Chauncey Lewis, son of Isaac and Esther (Beaumont) Lewis, was born in Meriden October 19, 1812. Until his father's death in 1823, he attended the public schools of Meriden, but after that time his educational advantages were confined to a single winter term of a public school and to occasional evening schools. After the death of his father, he lived one summer with Levi Yale on the Carpenter Place on East Main street, Meriden, and the next year with Moses Andrews, a farmer in the West part of the town. In the following year he went to Wallingford to live with his grandfather, Jared Lewis, to assist him in his hotel and store. After a year's service with his grandfather, the old gentleman died, and he returned to Meriden, where he remained two years, living a part of the time with his mother and after her death in 1828 with his brother Patrick, who kept a tavern at the corner of Main and Broad streets. It was while living with his brother that he attended one winter a public school at the north-east corner of the old cemetery on Broad street. In his fifteenth year he returned to Wallingford and entered the establishment of Charles and Hiram Yale, manufacturers of britannia ware, to learn the trade.

Charles Yale withdrew from the firm the next year, and established himself at what is now Yalesville, and young Lewis remained with Hiram Yale until the death of that gentleman in 1831. While working at his trade, he devoted his hours of leisure to reading and study, and he always remembered the pleasure which he received from the use of his first spare savings in the purchase of a history of the United States. In 1831, at the age of nineteen, he returned to Meriden, and entered the employ of Lewis & Holt, of which firm his brother Patrick was a member, who kept a store in a part of his brother's hotel building, and had a small factory on or near the corner of Center and East Main streets. He worked at a foot lathe, and his first business was that of making molasses-gates used for drawing molasses from hogsheads and barrels. Afterwards Lewis & Holt enlarged their business, and began the manufacture of britannia ware. In 1833 the firm failed, inflicting a loss upon young Lewis of about half of the little capital of eight hundred dollars which he had succeeded in accumulating. Almeron Miles took the business of Lewis & Holt, and he remained with him long enough to add two hundred dollars to his capital. The goods manufactured by Lewis & Holt had been handled by Potter, Shipman & Lewis, a firm of which Samuel Lewis, a brother of Isaac C. Lewis, was a member, and Mr. Lewis, now twenty-two years of age, formed a partnership with George Cowles, under the firm-name of Lewis & Cowles, and made a contract to supply them with a considerable amount of britannia goods. The new firm located in the east part of Meriden, hiring a shop known as the Crocker Shop, fed by water from Black pond. They began with ten or twelve hands, and in the spring of 1836 had completed the contract. Finding no satisfactory contracts at hand, the firm closed up its business, leaving Mr. Lewis with an accumulated capital of about fifteen hundred dollars.

The financial crisis of 1837 followed, and it became necessary for him to look about for business elsewhere. The western country, then developing rapidly, offered attractions to his spirit of enterprise, and, leaving his wife, to whom he had been only three months married, he started with Lemuel J. Curtis as a companion for the land of promise. By the way of New York, Philadelphia, Harrisburg, Pittsburg, Cincin-

nati, Louisville and St. Louis, they brought up finally at Edwardsville, near St. Louis, where Isaac and Eli Foster and a Captain Little and family, all from Meriden, were located. Here Mr. Lewis was attacked with malarial fever, and, after his recovery at the end of six weeks, he started with his companion for home, having seen the western elephant to his satisfaction. The only tangible result of their excursion was an investment in lands at one dollar and a quarter an acre, which, after the loss of sixteen years' interest and the payment of taxes, was sold for only double the purchase money.

On his return to Meriden, he formed a partnership with his companion, Mr. Curtis, under the firm-name of Lewis & Curtis, and began the manufacture of Britannia ware in East Meriden in a hired room in Cook's carding mill, nearly in the rear of the present Baptist chapel. The firm used the tools previously used by Lewis & Cowles, and, employing only one hand, did most of the work themselves. The product consisted of tea-pots, coffee-pots, sugar-bowls, pitchers, candlesticks, spittoons, etc. During the depression in business following the panic of 1837, both Mr. Lewis and Mr. Curtis, in order to dispose of their goods, hired a horse and wagon and started as peddlers on the road, taking tinware also as a part of their stock and receiving often in exchange rags, feathers and other salable articles.

In 1840 the firm of Lewis & Curtis dissolved, the latter entering into partnership with his brother Edwin, in Meriden Centre, and Mr. Lewis, after a few months, buying in 1841 the Fordred place, about one mile east of the Centre, where he lived for many years. Here he built a shop and carried on the britannia business on his own account, with the use of horse-power alone. As business increased, he substituted steam for horse-power, and employed two or three men. As business was still further enlarged, he found his accommodations inadequate, and in 1850 bought the Crocker shop, in which he had carried on business with Mr. Cowles, and increased the number of his hands to thirty or forty. He soon after associated himself with Daniel B. Wells, under the firm-name of I. C. Lewis & Company, but the death of Mr. Wells soon after terminated the partnership. Buying the interest of Mr. Wells, he continued in business alone, rapidly enlarging his product and the means of manufacturing it. About this time Horace C. and Dennis Wilcox, two enterprising men who had been selling the goods manufactured by Mr. Lewis, and who had made themselves known in the business world, conceived the plan of forming a joint-stock company, and buying up the several britannia-ware establishments in Meriden. They believed that such an arrangement would be for the interest of all parties, who would thus work together, instead of entering into a ruinous competition. Mr. Lewis first doubted the expediency of such a combination. He was doing well and hesitated about entering into the movement. He, however, finally yielded, and in 1852 the Meriden Britannia Company was incorporated, with a capital of \$50,000, the incorporators being Horace C. and Dennis Wilcox, W. W. Lyman, Lemuel J. Curtis, John Munson, James Frary, and Isaac C. Lewis. Mr. Lewis was made president.

With the other manufacturers in the combination, he turned in his machinery, tools, stock and manufactured goods, but retained the building and leased it to the corporation, making additions to it at a later day. Others were afterwards taken into the company. Among these were Samuel Simpson, a manufacturer of Wallingford, and George R. Curtis, a young man who had been a clerk in the Meriden Bank. The business of the company rapidly increased, and in 1864 the present factory near the railroad station was built, and the old shop of Mr. Lewis abandoned. For nearly fourteen years Mr. Lewis stood at the head of the new corporation, giving his con-

stant, personal attention to the business in its many details. Not only did he perform all the onerous duties of the presidency, but he exercised a careful supervision over the manufacture of the company's goods, that went far toward establishing the enviable reputation that the product of the factory soon gained.

At the end of this period the affairs of the Britannia Company were running so smoothly, and its success had been so pronounced, that Mr. Lewis felt that he should be partially relieved from his arduous duties. He accordingly, in January, 1866, resigned from the presidency of the company. The office of superintendent (which he had practically held all these years) was created, and Mr. Lewis was elected. This office he held until 1874, when he resigned that position. Upon the death of Horace C. Wilcox, August 27, 1890, at the earnest solicitation of the directors of the Britannia Company, Mr. Lewis again assumed the presidency, and remained in that office until his death. Though relieved of the duties of the presidency from 1866 to 1890, Mr. Lewis was, during all these years, a potent factor in the managerial and executive affairs of the company, and his views always played a large part in shaping the course of the Meriden Britannia Company, which had grown from an "infant industry" to become one of the largest manufacturing concerns in the country, with a capital of one million dollars, and having five million dollars invested.

In 1868 Mr. Lewis erected a costly residence on East Main street. This is still one of the handsomest houses in Meriden, and is the home of his widow. In 1874, Mr. Lewis, accompanied by his wife, his son, Mr. H. J. Lewis, and his daughter, Mrs. Chapin, took a southern tour, covering several months, during which they visited Florida, then went to Cuba, and returned from there to New Orleans. Then they proceeded up the Mississippi to St. Louis, and from there across to the Pacific coast, visiting Denver, Leadville, Salt Lake City, Omaha and other important cities en route. For several years after this, Mr. Lewis, with his family, went to Florida each winter, while their summers were spent on Lewis Island, a possession of Mr. Lewis', one of the Thimble Island group on Long Island Sound. In later years he occupied a summer residence which he built on the shore at Stony Creek, in Branford, Conn. As he advanced in years, Mr. Lewis' love of travel increased, and when, in 1878, his daughter, Miss Kate A. Lewis, was married to Rev. J. H. Chapin, Ph.D., Mr. and Mrs. Lewis, together with Dr. and Mrs. Chapin, went abroad, where they remained for several months.

During the busiest years of his life Mr. Lewis found time to devote to town and municipal affairs, and his towns-people were always eager to avail themselves of his services in the local government and in the state legislature. He was elected representative in 1848, 1853, 1862, and in 1866. During the first two terms Mr. Lewis was a Democrat, but in 1862, however, he was elected on the Union Republican ticket. When Sumter was fired upon, Mr. Lewis' patriotism was too strong to be hampered by party ties, or bound by party traditions, and he decided to "join the Republicans in suppressing the Rebellion." From the outbreak of the war, Mr. Lewis took a deep interest in its prosecution, and subscribed liberally whenever funds were needed by the North. He believed in sustaining the Union forces at any cost. And all through those dark years Mr. Lewis gave freely of his time and wealth to assist the families of the men who were fighting at the front. To this day no one has any adequate conception of the amount of money he gave in this way.

In addition to his serving his town in the state legislature, Mr. Lewis was justice of the peace in 1856, 1858 and 1860, member of the board of relief in 1861 and 1867, and served as an agent of the town deposit fund for a number of years. When the city was formed in 1867 Mr. Lewis was urged by his friends to accept the nomina-

tion for mayor, but this he refused to do. They insisted that he should occupy some place on the ticket, in order that the new city government might have the benefit of his judgment and ability. Yielding to this request, Mr. Lewis was nominated for councilman, and was elected. The next year he was made an alderman. Each year renewed pressure was brought to bear upon him to accept the mayoralty nomination, and in 1870 Mr. Lewis yielded. He was nominated on both the Republican and Citizens' tickets, and was almost unanimously elected. As was expected, Mr. Lewis' judgment and business ability were displayed when he became the city's chief executive, and his administration was a particularly successful one. The nomination was forced upon him for a second time, which, owing to a change in the month of holding elections, made his second term a year and a half in duration. Mr. Lewis could have had an almost unanimous election to a third term, but he would not consent to his name going before the city convention again. When a commission was appointed in 1875 to build water-works for the new city, Mr. Lewis was placed at its head, where he succeeded in establishing for Meriden one of the best supplies in New England. In 1876 he was appointed to the sewer commission, where he did important work.

Mr. Lewis' business interests embraced wider and still wider fields as the years wore on. Every new industry that needed encouragement and capital enlisted his support, until he had become a stockholder in a score of thriving concerns, and a director in a dozen of them. He was president of the Meriden Trust and Safe Deposit Company, the Miller Brothers' Cutlery Company, and on the directories of the Meriden National Bank, the Meriden Savings Bank, The Wilcox Silver Plate Company, The Meriden Silver Plate Company, The Manning & Bowman Company, Edward Miller & Company, The Wilcox and White Organ Company and others.

Among the most notable personal characteristics of Mr. Lewis were generosity, public spirit, amiability, firmness and modesty. He was never hasty in reaching a conclusion, but when taken, he would maintain it until the wisdom of his position was established and acknowledged. Yet he was at all times, no matter what the discussion or controversy, amiable in manner, modest in stating his own position, and generous in admitting the honesty of those who differed from him. In all his varied affairs of life Mr. Lewis avoided litigation; never on a single occasion did he resort to a court of law for justice, nor was he ever sued. He always found some equitable way of settling disputes, and thus made life-long friends where other men would have incurred unending enmity. To young men Mr. Lewis was always a source of wisdom and inspiration. To him they went for counsel, and they always found in him a guide and friend. Mr. Lewis evinced but little fancy for club life or extensive society membership. He was, however, a life-long member of Meriden Centre Lodge, Independent Order of Odd Fellows, and was also a member of the Sons of the American Revolution.

Mr. Lewis was brought up an Episcopalian, but after his marriage in 1836, he attended services at the Baptist Church until 1854, when, largely through his instrumentality, the First Universalist Society of Meriden was formed. There Mr. Lewis' religious zeal received its real inspiration, and there the most generous impulses of his life found their rich fruition. After the society was organized, Mr. Lewis founded the Sunday-school and was chosen its superintendent. For eighteen years he held that office, until the Sunday-school of scarcely a dozen members has become an organization with a weekly attendance of several hundred. To the Universalist Church Mr. Lewis was an ever-present inspiration, assisting or leading his fellow-members in all church work, and contributing largely towards its financial support.

In the creed of "the Fatherhood of God and the brotherhood of man," and in the doctrine that proclaimed "the final restoration of all mankind to a state of holiness and happiness," Mr. Lewis' nature found its perfect expression.

In the financial support of the First Universalist Society of Meriden, Mr. Lewis' generosity stands without a parallel in all New England. Always a liberal contributor to the church, his gifts to it increased from year to year to a remarkable degree. When the first church on Norwood street was built it was Mr. Lewis who paid the larger part of its cost, and when a number of years later the church was remodeled and enlarged, it was his donation again that covered the greater share of the expense, and later he purchased a new organ for the society. Mr. Lewis' crowning contribution to the First Universalist Society, however, came a few years before his death, when a fine new church was built. So liberally did Mr. Lewis give to this society that during the last ten years of his life his contributions to it far exceeded \$100,000.

Shortly after Mr. Lewis' death the spirit of his devotion to the Universalist Church was perpetuated by Mrs. Lewis, in a gift to the society of a full set of chime bells. They are the heaviest chimes in the United States, and their tones are particularly sweet. Nothing could more perfectly typify Mr. Lewis' character, or express his deeds more fully: sweetness, strength and purity were the prime characteristics of his life; and, as the tones of the bells each Sunday carry joy and good tidings to all for miles around, so Mr. Lewis' life and deeds made life happier and better worth the living for all who came in contact with him.

Nor was the liberality of Mr. Lewis confined to his own church; no struggling ecclesiastical organization in Meriden ever appealed to him for assistance without receiving it. He always gave freely of his wealth to public institutions and charitable societies. While a trustee of the Connecticut School for Boys he gave liberally to establish a library for that institution; later he gave a large amount to the Meriden High School for a similar purpose. His most notable gift, however, was that of the Mission Block, in Meriden, to the City Mission Society.

From the time this society was formed it appealed to Mr. Lewis as an institution that would do the greatest amount of good to the largest number of those who were in actual need. There he saw his opportunity to reach out a helping hand to God's poor. Without taking the public into his confidence Mr. Lewis purchased a building site in the best business portion of the city and erected thereon a handsome five story block containing stores, offices and public halls. Soon after the building was completed Mr. Lewis, accompanied by Selah A. Hull, his financial agent, attended a meeting of the City Mission Society. Mr. Lewis briefly addressed the meeting and concluded his remarks by presenting the society with the deeds of the lot and building which was just completed, the value of which was nearly \$75,000. The members of the society were so surprised by the magnitude of the gift that they could hardly find words to express their gratitude and appreciation.

Always an earnest supporter of the temperance cause, Mr. Lewis joined the Sons of Temperance upon its organization and was one of its loyal leaders, and the largest society in Meriden bore his name. The Woman's Christian Temperance Union also enlisted his sympathies and he contributed to it liberally. In 1883 he joined the Prohibition party, in support of whose principles he was ever after active and efficient. Though an advocate of protection to American industries, he came to believe that the prohibition of the liquor traffic was more important than all other political measures. Mr. Lewis was a firm believer in woman's emancipation, and advocated her right to suffrage. When Meriden's Political Equality Club was formed he became a life member. Before his death Mr. Lewis donated the club a handsome sum.

But it is impossible to present a list of his benefactions. They fell like the gentle dew on the parched earth, and wherever suffering and want were to be found, his hand was always open for their relief.

Mr. Lewis married May 11, 1836, Harriet, daughter of Noah and Nancy (Merri-man) Pomeroy, of Meriden, and his children were Nancy Melissa, who was born February 26, 1837, and died January 27, 1856; Martha Eugenia, born October 3, 1839, who married October 22, 1861, Charles H. Fales; Henry James, born October 21, 1841, who married August 7, 1884, Mary Emma Stringer, and lives in Stratford, Conn.; Isaac, born July 15, 1843, who died April 30, 1847; Kate Alabama, born May 8, 1851, who married July 29, 1878, Rev. James Henry Chapin, Ph.D.; and Frank, born December 30, 1852, who died October 9, 1855.

In his home life those personal characteristics which made Mr. Lewis beloved in business and social circles, shone forth in an even greater degree. There he was the embodiment of goodness; there his noble Christian manhood found its truest manifestation. The home ties grew stronger as years passed, and the home life became happier and sweeter day by day, until that winter morning on the 7th of December, 1893, when with hardly a moment's warning the summons came, "Well done thou good and faithful servant, enter thou into the joys of thy Lord." And with the tears and grief of the stricken family were mingled the sorrow and sympathy of an entire city. Never was man more deeply mourned; never was grief more keen; every one in the city felt that he had lost a personal friend.

On Sunday memorial services were held in several of the city churches and addresses delivered by pastors of various denominations. While the body lay in state in the Lewis mansion over four hundred employees of the Meriden Britannia Company, together with the electrical force of the company and the directors of the various corporations with which Mr. Lewis had been connected, called to pay their tribute to the man who was so universally loved and respected. The mayor of the city and all the town and municipal officials also called to honor his memory. Mr. Lewis' funeral was held on Monday, December 11, and the day was one of general mourning throughout the city. Flags were displayed at half-mast on all the factories and public buildings, while shops and places of business were closed during the hours of the funeral ceremony. The body was deposited in the Lewis-Chapin mausoleum in Walnut Grove cemetery.

In closing this sketch of Mr. Lewis' life no more fitting words could be used than the following from his pastor, Rev. W. S. Perkins, D.D., of the First Universalist Church: "My sense of loss was swallowed up in the contemplation of the greatness and beauty of his life. What would we add to it? What take away? Nothing. What strikes me as a marvel of his life is not the generosity in which it exceeded any I have ever known, not the modesty which was so great it could not well bear praise, but the perfect balance of every good quality; generosity, prudence, humility, firmness, affection, and conscience, and every Christian characteristic combined in a complete manhood, to which you could point and say, 'Behold a Christ-like man.'"

CHARLES PARKER.

AMONG the early settlers of Hartford, Conn., was William Parker. His third son, John, removed to New Haven, Conn., where he had a son John born in 1648. The latter John was one of the first settlers of Wallingford in 1670, and occupied land in that town, which is still known as the Parker farm. His son Edward, born in 1692, settled in what was then called the Cheshire parish of Wallingford, and is now the town of Cheshire. Joel Parker, son of Edward, born in 1723, lived in Cheshire, where his son Stephen, born in 1759, married for a second wife, widow Rebecca Stone, whose maiden name was Ray. The children of Stephen and Rebecca were John, born August 30, 1805; Betsey, May 1, 1807; Charles, January 2, 1809, and Edmund, February 9, 1811.

Charles Parker, one of the above children, now living in Meriden, Conn., is the subject of this sketch. At the age of nine years, after attending for a time a district school in Cheshire, he went to live with Porter Cook, a farmer in Wallingford, with whom he remained five years, attending school in the winter and during the remainder of the year working on the farm. At the age of eighteen years he entered the employ of Anson Matthews, a manufacturer of pewter buttons, in Southington, Conn., receiving for his work six dollars per month and his board. After a year's service with Mr. Matthews he was employed six months by Harry and Horace Smith, who were also button manufacturers, receiving his board and an advance on his former wages of six dollars per month. After leaving the Smith factory, he went, in 1828, to Meriden, and was employed by Patrick Lewis in the manufacture of coffee-mills.

In December, 1829, having in a single year become master of the business in which he was engaged, he entered into a contract with Patrick Lewis and Elias Holt to make for them a specified number of coffee-mills per month. Starting with a capital of only \$70 he made under his contract in thirteen months a profit of \$1800. In 1831 he took Jared Lewis as a partner and continued the work under his contract. In January, 1832, he sold his interest in the business to his partner, and buying an acre of land in Meriden, on which he built a shop, carried on alone the manufacture of coffee-mills and waffle-irons. In November, 1833, his brothers, Edmund and Herman White, became associated with him as partners under the firm-name of Parker & White. Under the depressing influences of the financial panic of 1837 the firm temporarily suspended, but before the expiration of the year 1842 liquidated their indebtedness in full with interest. In 1845 the firm dissolved, and Mr. Parker continued its business alone, under the name of the Union Works. He made additions to the plant, and putting in a Corliss engine of eighty horse-power, entered upon a career of prosperity and success.

In 1877 Mr. Parker organized a joint stock company under the name of the Charles Parker Company, and under that name the business of the Union Works has since been carried on. Of this company Mr. Parker is president, his son Charles E. Parker is vice-president; his son, Dexter Wright Parker, treasurer, and his son-in-law, William H. Lyon, secretary. The products of the company are chiefly wood-screws, patent bench vises, coffee-mills, lamps and piano-stools, and besides these there are other articles too numerous to mention.

The business interests of The Charles Parker Company are not confined, however, to the above industry. They are the owners of a large factory also in Meriden, where are manufactured machinists' tools and breach-loading double barreled shot

guns known to sportsmen as the "Parker Gun." In this factory, during the War, Mr. Parker made guns for the government. A factory at Valesville Parish, Washington, is owned and operated by The Charles Parker Company for the manufacture of packing-boxes, and a portion of the coffee mills and piano stools; and another factory at East Meriden for making tinned steel spoons and forks. In these various enterprises about eight hundred hands are employed.

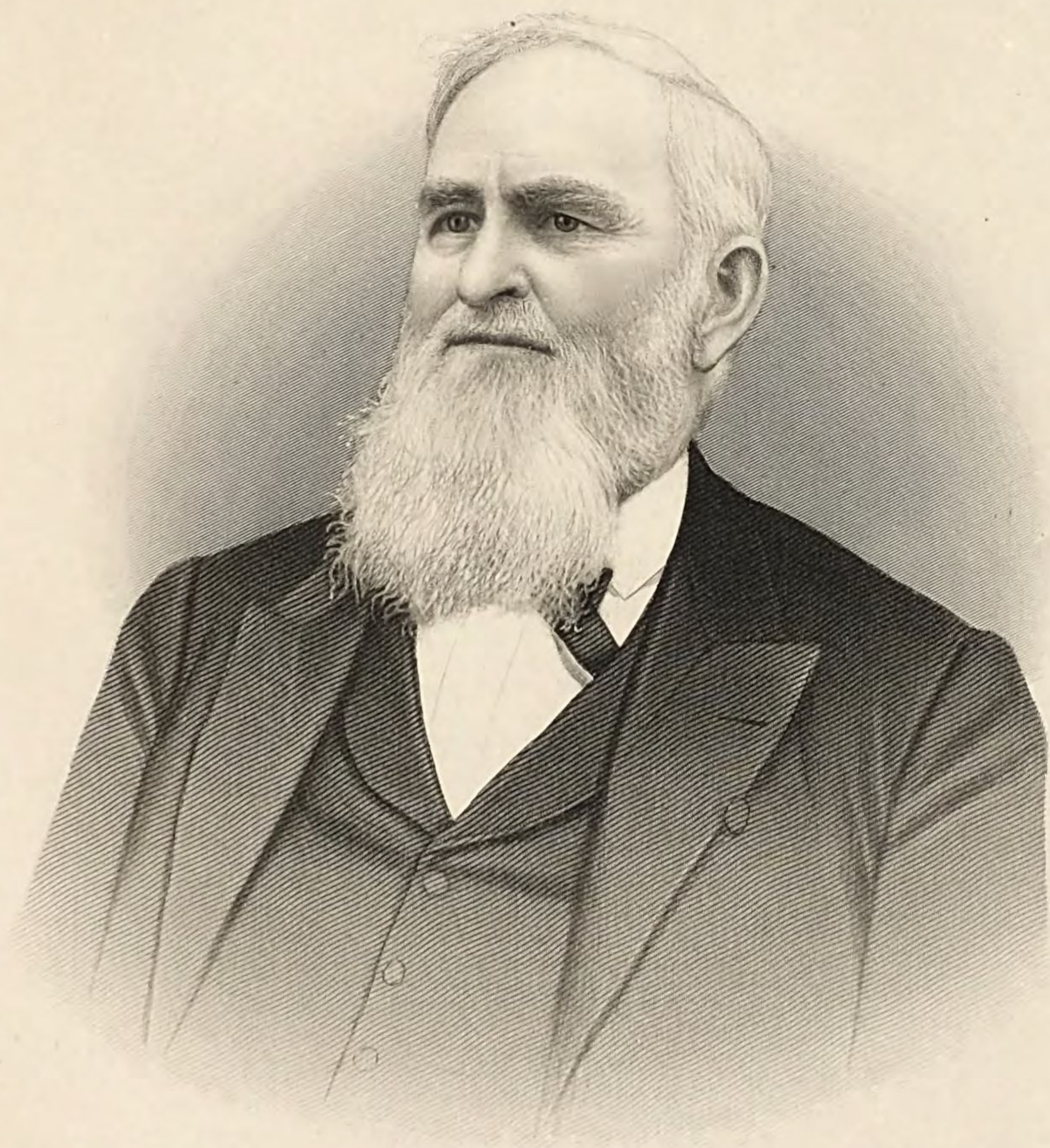
The Charles Parker Company also own and operate The Meriden Curtain Fixture Company, the most complete manufactory of curtain fixtures in the world. The Parker & Park Company of Meriden is also principally owned and controlled by The Charles Parker Company. These combined interests mentioned give employment to about fifteen hundred persons.

The successful management of the various industries under the control of Mr. Parker, and the judicious investment in those under the control of others, must need hardly be stated, have required an unusual executive ability, a keen foresight, sagacious judgment, shrewd power of calculation and a knowledge of men, not often found possessed by a single man. All these traits characterized Mr. Parker, and, as a man, like an iron chain, is no stronger than his weakest part, if either had been wanting, the success which has marked his career would have been impossible.

There have been incidents in the life of Mr. Parker which show that the necessity for economy and shrewdness neither hardened his heart nor closed his hand when the welfare of those about him called for his aid. At one period in his career, the late William L. Bradley, of Boston, widely known as the wealthy manufacturer of land-fertilizers, was in his employ, at a salary of three thousand dollars per annum. Mr. Bradley, with his consent, engaged in partnership with a friend, in an enterprise which, through the mismanagement of his partner, resulted in a loss and indebtedness of twenty thousand dollars. He could not be induced to compromise with his creditors, but determined to use every effort to pay his indebtedness in full. In order that he might carry out his laudable determination, Mr. Parker doubled his salary, and paid him four years' salary in advance. This was the turning-point in the business career of Mr. Bradley, and to the generosity of Mr. Parker the remarkable successes of his future life were undoubtedly due.

Mr. Parker is a member of the Methodist Episcopal Church in Meriden. When this society was started one of his shops was fitted up by him for Sunday services. Toward the erection of the first house of worship of this church in Meriden, costing \$6,000, he gave, in 1847, a church-lot and three-quarters of the cost of the building. In 1866, when the present church edifice was erected, at a cost of \$80,000, one-half of the cost was defrayed by him. The citizens of Meriden, in recognition of his public spirit and the esteem in which he was universally held, made him mayor of the city at the time of its incorporation, in 1867.

Mr. Parker married, in 1831, Abi Lewis Eddy, of Berlin, Conn., and has had ten children, of whom three are living: Charles Eddy and Dexter Wright, both with their father in business, and Annie D., the wife of William H. Lyon, the secretary of the Charles Parker Company. He is now, at the age of eighty-eight, retired from active participation in the management of his business interests, except in the way of advice and counsel, with a mind undimmed by age, enjoying a home in Meriden in which may be seen abundant evidence of cultivated tastes and an ample store.



Eng. by P. G. Kernan N.Y.

Chas. Parker

NATHANIEL L. BRADLEY.

THE manufacturing industries of New England, and the inventive genius of her sons, have caused this locality to take an exalted position among the manufacturing sections of the world, and prominently identified with the manufacturing interests of Connecticut, and justly ranked among the leading and progressive citizens of New Haven county, is Nathaniel L. Bradley, of Meriden, the subject of this sketch, who possesses in a remarkable degree the traits of character which have made the name of New England synonymous with integrity and uprightness.

He traces his ancestry in this country to Hon. William C. Bradley, who came from Bingley, England, in 1643, and was one of the early settlers of New Haven, Conn.

Levi Bradley, father of Nathaniel L., was born in Cheshire, November 11, 1792. He married Abigail Ann Atwater, and their family consisted of the following, namely: Emiline, wife of Alfred P. Curtis, of Meriden; Samuel A., of Cheshire; William L., of Boston, and Abby Ann, wife of Walter Hubbard, of Meriden. Of this family of children Nathaniel L. is the only surviving member. Levi Bradley was a progressive farmer, and a man of marked influence in his native town, whose moral worth made for a wholesome and strong virtue in the community. The sympathies of Mr. Bradley were decidedly Christian, and in the conscientious observance of all his religious duties he was most heartily joined by the entire family circle. The advancement of the interests of the church found in him an earnest supporter. Although a close student of passing events, he gave much time also to the study of history, in which he was deeply interested even to the close of his life. He died March 18, 1877, honored and respected by a large circle of friends and acquaintances.

Mrs. Bradley, mother of Nathaniel L., although now at the advanced age of ninety-six years, still retains her mental and physical vigor in a remarkable degree.

Nathaniel L. Bradley, the youngest son of the above-mentioned family, was born in Cheshire, Connecticut, December 27, 1829.

Mr. Bradley's boyhood was passed in his native town, where the rudiments of his education were acquired in its district schools. He subsequently entered the old Meriden Academy, then under the supervision of Mr. John D. Post, from which institution he was graduated in 1845, Mr. Dexter R. Wright at that time being its principal. Here he succeeded in securing an education, which greatly aided him in his subsequent successful business career.

At the close of his academical studies, he entered the employ of Mr. E. B. M. Hughes, a hardware merchant in the city of New Haven. Here he remained one year, when, on account of the request of his parents, he returned to his native town, very much to the regret of Mr. Hughes, and devoted himself to farm work. His ambition, however, rose above agricultural pursuits, and, after remaining on the farm a short time, he began work in a clock factory in Southington, Connecticut, at a compensation of \$1.25 per day. It was here that his eminent business ability, which has shone resplendent in later years, began to show itself in his new occupation, and he rose rapidly in the appreciation of his employers. He had remained here but a short time, when he was offered a contract for making clocks in this factory with its capacity of three hundred per day and which he readily accepted. Later on, in the event of the great accumulation of goods, which necessitated the stopping of the works, it was proposed to Mr. Bradley that he visit New York, Philadelphia, Baltimore and Washington for the purpose of selling the goods of the company.

The success of his venture brought to practical demonstration the traits of his character which clearly illustrated great business tact, and was not less gratifying to himself than to the president of the concern, and resulted in the dismissal of other salesmen, and Mr. Bradley was not only chosen the representative salesman of the company, but also was elected a director. The year 1852 marked the inception of the great industry in Meriden, with which Mr. Bradley's name has since been associated. The Bradley & Hubbard Manufacturing Company, as originally organized, was composed of Mr. Nathaniel L. Bradley, William L. Bradley, Walter Hubbard and the Hatch Brothers, the capital being five thousand dollars. The business rapidly increased, and two years later, more capital being an imperative necessity, the Hatch Brothers disposed of their interest and the new company of Bradley & Hubbard was organized, consisting of Walter Hubbard, William L. and Nathaniel L. Bradley. The business was continued under this name and form until 1862, when William L. Bradley disposed of his interest to Nathaniel L. Bradley and Walter Hubbard, and the business was continued under this copartnership until 1875, when a joint stock company was formed, bearing the name of the Bradley & Hubbard Manufacturing Company, taking in C. F. Linsley, who was then in the employ of the company. No change in the holdings of stock or in the organization has occurred since that time, with the exception of the admission of Mr. C. P. Bradley, son of Nathaniel L. Bradley, as a stockholder and director, who is also his father's private secretary and treasurer. The organization of the company is: Walter Hubbard, President; Nathaniel L. Bradley, treasurer; C. F. Linsley, secretary.

This company has enjoyed almost phenomenal success, and from a small concern, employing but six workmen, has grown to an immense plant of brick buildings, with a floor area of nearly seven acres, and employs about fifteen hundred operatives, and has established offices and sales-rooms in New York, Boston, Chicago and Philadelphia. Keeping abreast with the great stride in the manufacturing world, the Bradley & Hubbard Manufacturing Company have adopted the most improved machinery, and give the closest attention to producing the best and most artistic class of work that can be found in this or any other country. The highest style of art is made subservient to the taste of the trade, and each successive year evidences the greatest possible skill in intelligent artisanship. Their products have a ready and large sale, not only in the United States, but in foreign countries as well. The show-rooms of the Bradley & Hubbard Manufacturing Company is one of the beautiful places to which visitors to Meriden are taken, being a true exponent of the city's industry and its mechanical ability, as well as proof also of the enterprise of Messrs. Bradley and Hubbard. Their manufacture is in the line of chandeliers, brackets, piano-lamps, banquet-lamps, bordeaux-lamps, table-lamps and hanging-lamps for oil in brass, bronze and wrought-iron, all of which have the celebrated B. & H. burner. Oil-stoves are also made in great variety. Their gas and combination gas and electric fixtures are made in bronze, brass and wrought-iron, and comprise what are conceded the finest goods made, both in artistic design and finish. Bronze statuary, bronzes, stationers' art goods, brass tables with onyx, brass and wrought-iron andirons, fenders and fire sets, clocks in ornamental iron cases, taking the place of French clocks, and a variety of elegant ware in bronze and brass, which is not readily classified, is to be seen at their elaborate show-rooms.

Mr. Bradley has always manifested a lively interest in all matters tending to advance the welfare of Meriden, and his residence there covers the most important period of the city's growth, increasing from a business centre of three thousand people to of the leading manufacturing cities of New England, with a population of



J. A. J. Wilcox, Boston

W. L. Bradley

thirty thousand. He has been intimately identified with the development of its municipal interests, and, although being too thoroughly engrossed in the management of his large business interests to accept office as often as it has been urged upon him by his fellow-citizens, nevertheless he has served the city as alderman and acting mayor, and has exerted a widespread influence in the improvement of the city in its physical features, its streets, parks and cemeteries being objects of his special care. He is president of the Meriden Park Company and also president of the Meriden Hospital. He is also interested in various financial enterprises in Meriden, which are greatly benefited by his mature judgment and clear business foresight. He is a director in the First National Bank, the City Savings Bank, Meriden Fire Insurance Company, in which company he is also vice-president, the J. D. Bergen Company, Meriden Trust and Safe Deposit Company, Meriden Horse Railroad Company, the Meriden Republican Publishing Company and other financial enterprises, and is also vice-president and treasurer of the Meriden Board of Trade. He is trustee of the State School for Boys, and has ever been a liberal supporter of every public enterprise. He is also a member of the Connecticut Society, Sons of the American Revolution.

Politically he is a Republican and an earnest advocate of the principles of that party. In charity and religious life Mr. Bradley's influence is especially strong. He gives freely and constantly to proper objects of charity and every good work has his sympathy and aid. He was among the first to liberally provide for the work of the Y. M. C. A., to the erection of whose building he subscribed cheerfully and generously. He has been very closely related to the work of the First Congregational Church, of which he is a member, and gave a princely sum towards the erection of the handsome church edifice belonging to that society. For nearly twenty-seven years he has been chairman of the committee of this society and through all that time has earnestly studied and labored to build up a harmonious and prosperous fellowship.

His financial interests are not confined alone to his large business in the city of Meriden. He is interested in the Dunnellon Phosphate Company located near Ocala, Fla., which was formed in 1890 with a paid in capital of \$1,200,000. Their property covers an area of thirty thousand acres, the shipping point being at Fernandina, Fla. The business of the company is the mining of rock phosphate, which is the foundation of all phosphate fertilizers. The annual product of these mines at present is seventy-five thousand tons a year, which can be increased to any amount as the demand requires. The product is all marketed in London, England, where it finds a ready sale. Mr. Bradley, as a capitalist, is also interested in the salt works located at Warsaw, N. Y., which are conducted under the name of the Bradley Salt Company. The brine of the salt produced by this company is absolutely colorless and the Bradley Granulated Salt, which is made by a new patent process, is conceded to be the best in the world. The company also makes a specialty of table salt which, from its excellence and purity, commands a large sale. The present capacity is five thousand barrels per day.

October 25, 1860, Mr. Bradley united in marriage with Hattie E., daughter of Seldon and Lucy Hooker (Hart) Peck, of Kensington, Connecticut, and their family consists of one son, Clarence P. Bradley, who, as mentioned above, is associated with his father in business. Mrs. Bradley is a worthy helpmeet, and encourages the good spirit of her husband and co-operates in his benevolent and religious designs. The residence of Mr. Bradley is delightfully located on a principal street, and is one of the finest and most beautiful in the city of Meriden. Notwithstanding his active

business life, Mr. Bradley has found time to devote to European travel, having crossed the Atlantic Ocean six times.

Probably among Mr. Bradley's personal traits of character is his sound discrimination, his fearless and impartial discharge of official and private duties. He is a man of spotless integrity, of quick apprehension and accuracy, and of sound judgment in business, and these qualities make him an acknowledged leader in the community. As a type of manhood, of the sterling quality in its triple union of moral, mental and physical worth, Nathaniel L. Bradley would be a marked man in any community. Decision of character, tact and sagacity are indicated in every line of his strong, earnest face, and when united with his physique, the picture is that of a man born to achieve success in business and to command the confidence and respect of his associates. In an age advanced for mechanical skill and the application of force to the development of material resources, men of the quality of Mr. Bradley are absolutely indispensable. Metaphysicians and theorists are relegated to seclusion, while practical thinkers and doers are advanced to leadership.

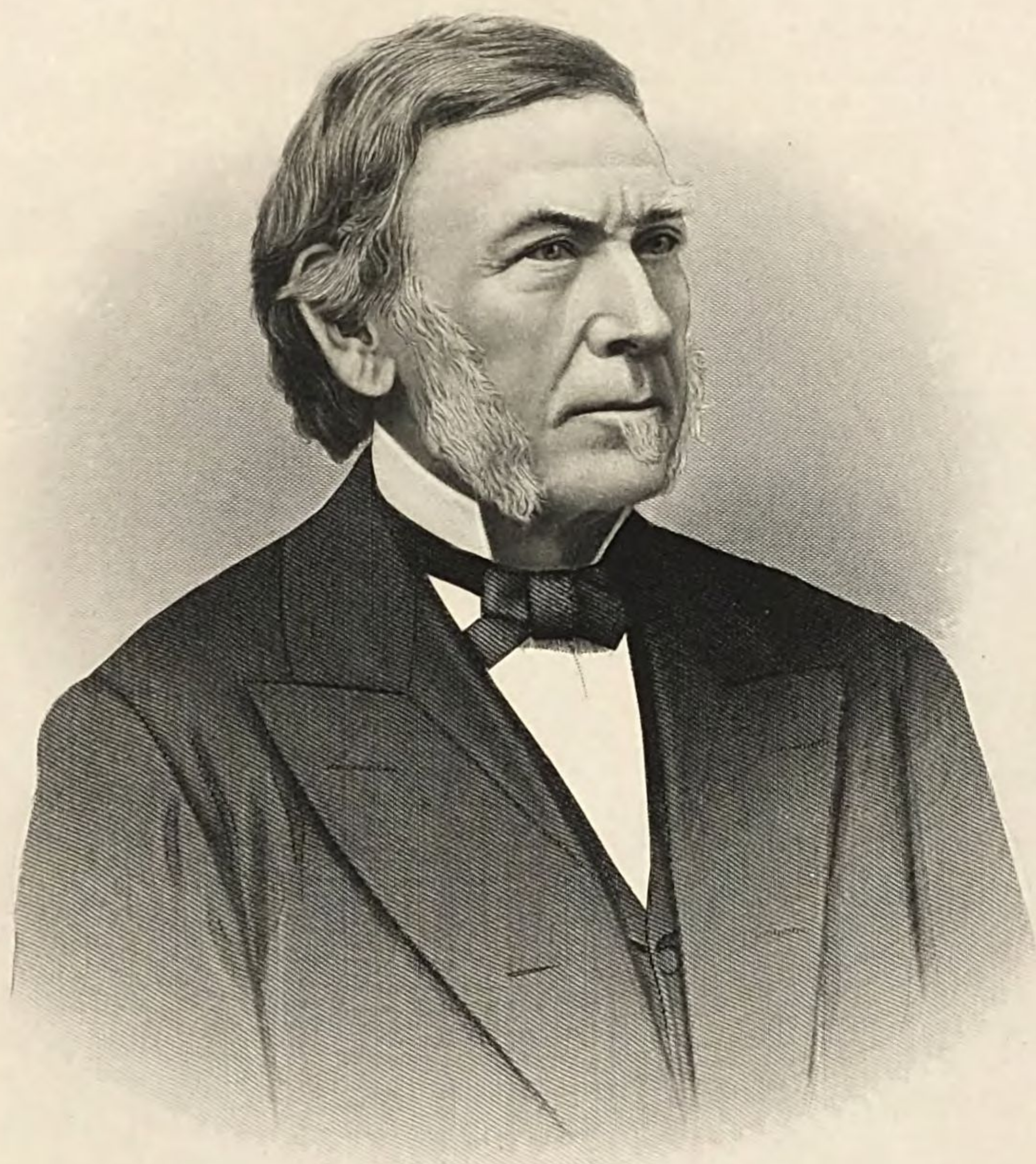
SAMUEL SIMPSON.

THE town of Wallingford, situated in New Haven county in the state of Connecticut, has long been distinguished for its manufacture of Britannia, and German silver and silver-plated ware, and its products may be found with those of Meriden in the windows and show-cases of every city and considerable town in our country. Of the men, whose business enterprise has built up and maintained the high reputation of this manufacturing town, none have been more distinguished than Samuel Simpson, the subject of this sketch.

Mr. Simpson was born in Wallingford April 7, 1814, and was educated in the public schools of his native town. In January, 1835, at the age of twenty-one, he began on his own account in a small way the manufacture of Britannia ware. Possessing a mind naturally gifted, and further cultivated by a fair education, and a character whose traits of shrewdness, foresight, discretion, determined will and unimpeachable integrity, were prominent through his whole career, the manufacturing enterprise in which he embarked so early in life was steadily and safely established on safe foundations; and as success attended his efforts became one of the chief manufacturing plants of his adopted town. His career as a manufacturer, however, was broken for a few years by his connection with mercantile business in New York as a member of the firm of Simpson & Benham.

After carrying on business many years on his own account in Wallingford, he organized in 1866 in that town the manufacturing firm of Simpson, Hall, Miller & Co., of which, as a joint stock corporation, he was made president, C. H. Brown treasurer and A. Andrews secretary. In the office of president he remained through life. At the present time the capital of the company is \$302,500, and it employs about three hundred hands in the manufacture of Britannia, German silver and silver plate knives, forks and spoons.

But Mr. Simpson's business interests were not confined to the company of which he was president and manager. He was also president of the Simpson Nickel-Silver Company, and a director in the Meriden Britannia Company. In 1863 he was prominent in the organization of the First National Bank of Wallingford, and subscribing for one-tenth of its capital stock, became a director in the bank and



Eng^d by F. G. Kernan, N.Y.

Samuel Thompson



James D. Dewell

James A. Smith



James D. Dewell

Massachusetts Publishing Co. Everett, Mass.

Handwritten signature or text, possibly "H. B. Smith".

finally president, holding the latter office until 1891. He was also president of the Savings Bank in Wallingford from the time of its establishment until 1891.

In public affairs, also, Mr. Simpson took an active part. The counsel and aid of such men can never escape the public eye. He was a representative from Wallingford in the Legislature of Connecticut in 1859, 1865 and 1879, and at one time the candidate of the Democratic Party for the State Senate. He was also at various times selectman, assessor, member of the board of relief, and warden of the borough. His usefulness as representative, and the important service rendered to his constituents in that capacity, were appreciated by the whole community without distinction of party, and his terms of service were limited only by his own reluctance to sacrifice the business interests of himself and of those for whom he felt that he was acting in a fiduciary capacity as trustee. He was an Episcopalian in religion, and from 1837 until his death was a warden of St. Paul's Church, of which he was a member.

Mr. Simpson married, July 6, 1835, Martha DeEtte, daughter of Joseph Benham, of Cheshire, Conn., and had six children, of whom only one is living—Elizabeth, the wife of Gurdon W. Hull, the manager of the company of which he was so long the president. He died at his home in Wallingford, April 7, 1894.

JAMES DUDLEY DEWELL.

PROMINENTLY identified with the business interests of New Haven, and justly ranking as one of Connecticut's most esteemed citizens, is the Hon. James Dudley Dewell, present lieutenant-governor. He was born in Norfolk, Litchfield county, Conn., September 3, 1837. His father, John Dewell, was a native of Dutchess county, New York, of Scotch descent, and a prominent manufacturer and merchant in Norfolk. He married Mary Humphrey, a native of Norfolk, descended from Michael Humphrey, who settled in Windsor between 1640 and 1645.

Having decided upon a mercantile career, soon after his twentieth birthday, Mr. Dewell went to New Haven as salesman for the mercantile firm of Bushnell & Company, wholesale grocers. Here his enterprise and energy, which in later years made him a power in the community, were quickly manifest, and two years later he became a member of the firm. In 1864 the firm name became Bushnell & Dewell, and in 1879 it was changed to J. D. Dewell & Co., in which form it has become familiar to the mercantile world.

All measures tending to advance the interests of New Haven have found in Mr. Dewell an able and earnest supporter. Mr. Dewell has been deeply interested in the business interests of New Haven, and the state in general, and has devoted much time to the development of New Haven by means of its Chamber of Commerce, of which he has served as president for many years. He was one of the prime movers in the organization of the State Board of Trade, and, in fact, it may be stated, in justice to Mr. Dewell, that it was through his personal instrumentality that the Board was organized. He was elected president on its formation in 1891, and has filled the position since that time by unanimous consent. He has labored earnestly to increase the influence of this organization, and under his guidance it has become a power in the land, and accomplished a vast deal of good. Mr. Dewell was also at the head of the movement in favor of good roads in Connecticut.

He is vice-president of the Security Insurance Company, a director of the New

Heaven Water Company, and also a director of the City Bank of New Haven. He is also director of the Sutton Fleet, a coast-wise industry embracing coastwise steam and sailing vessels, plying between Southern ports and New England with an extensive coastwise charter.

Mr. Dewell has been deeply interested in the Young Men's Institute of New Haven, and for many years he has been a director and contributor to its support. He is also a member of the New Haven Historical Society, and is a member of the American Revolution. He is also a director in the Evergreen Association, and holds various other important offices within the gift of his fellow citizens.

Mr. Dewell was united in marriage with Miss Mary Elizabeth Keyes, of New Haven, and their family has consisted of six children, five of whom are living, one deceased and one still born.

Politically, Mr. Dewell is a member of the Republican party, and is a firm adherent of its principles. He was among the charter members of the Republican League, and has ever been interested in the welfare of the organization. His loyalty is well attested by the fact that for three terms he has been elected president of this League, discharging its duties with great acceptability.

Although ever manifesting a deep interest in the Republican party and its later success, both national and state, his business interests were so large and so absorbing that they exclude him from entering the field of politics. In 1896, however, he was elected to the nomination of his party for lieutenant-governor, and was elected, which position he now holds.

James D. Dewell is essentially a self-made man. Early in life he found that the way to success was by no royal road, but was open to stout hearts and to hard work. He gained nothing by mere luck, but everything by perseverance and by dignified plans, and the intelligent application of his energies to the end in view.

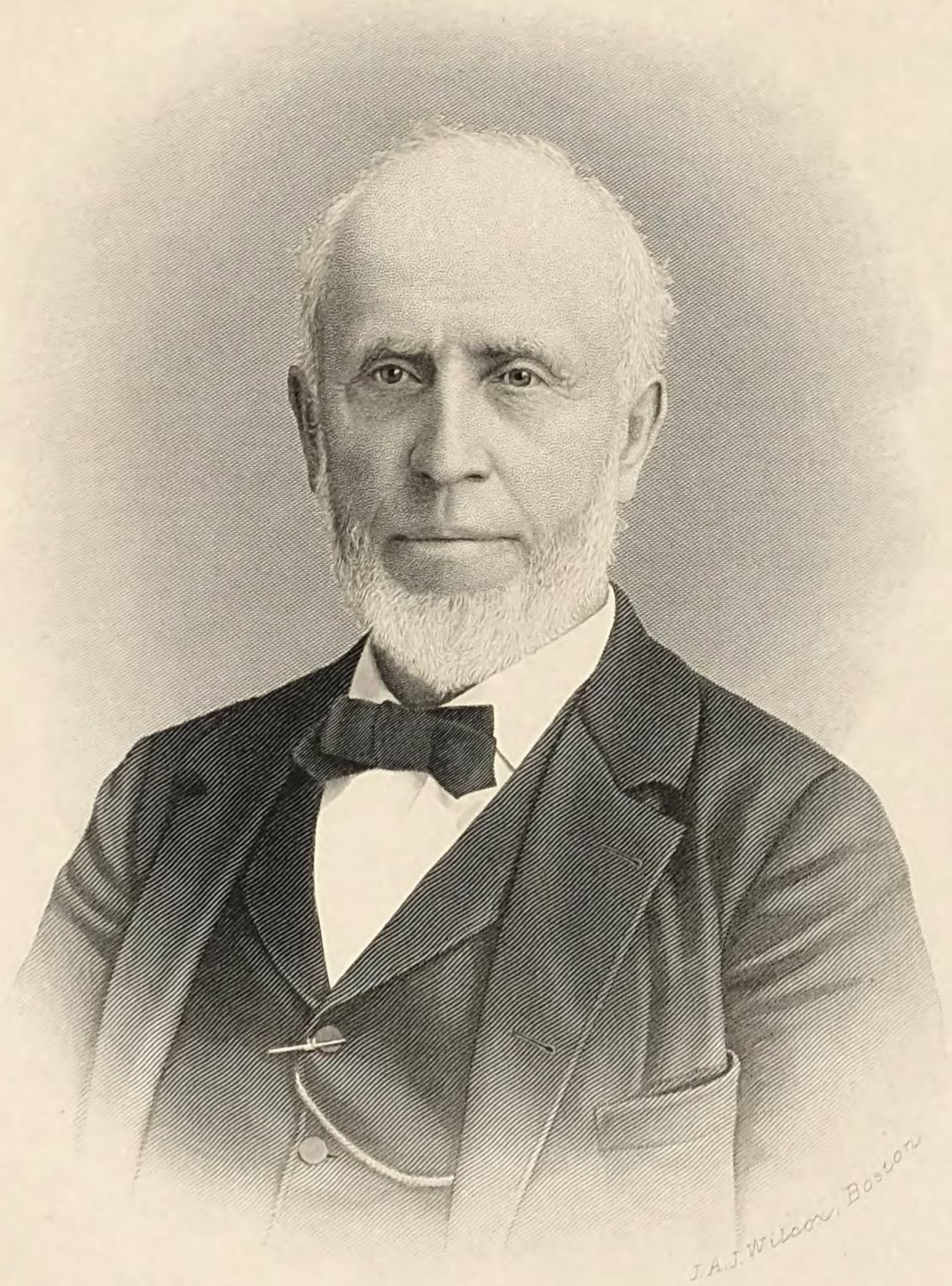
In social life he is gentlemanly and affable, and is one of New Haven's most respected and honored citizens.

JAMES STAPLES.

THE subject of this sketch is descended from Peter Staples, who came to England in 1640 with two brothers, and settled in what is now Kittery, Me.

His great-grandfather, Miles Staples, born September 22, 1729, lived in Prospect, Me., and married, June 11, 1753, Sarah Trefethenen, and died in Prospect, Me., February 11, 1810. His grandfather, Miles Staples, born in Prospect, married Jane Nickerson, and removed to Swanville, Me., where he continued to live until his death. His father, Hezekiah Staples, born in Swanville, married Elizabeth Treat, of Swanville, and followed the sea, being for thirty years a sea captain. The grandfathers of the husband and wife were residents in Prospect, Me., now Stockton, and their graves are adjoined.

James Staples, son of Hezekiah and Elizabeth (Treat) Staples, and one of seven children, was born in Swanville, January 19, 1824, and was educated in the district schools of Swanville, high school of Searsport and academy of Belfast. At the age of seventeen he began to teach school, and until 1853 was engaged in that occupation in Monroe, Swanville, Searsport and Belfast. During the next year he taught in Hyannis, Mass., and in 1854 removed to Bridgeport, Conn., where he established



James Staples

himself in the lumber business. Though hopefully prosperous for three years, the severe financial crisis of 1857 caused his failure, and once more he was obliged to start in a business career. At that time, as the financial clouds were gradually swept away, operations in real-estate became quickened in and about Bridgeport, and, as agent and commission merchant in the real-estate field, he once more established himself in the confidence of the community, and built up a large and increasing business. Finding his time and capabilities far from exhausted by his dealings in realties, he added the business of an insurance agent to his other operations, and soon became one of the most trusted agents in that occupation in the state. After carrying on his business alone for several years he associated with himself his brother, George A. Staples, under the firm-name of J. & G. A. Staples.

In 1874, the firm still further extended its operations and established a private banking business in addition to its real-estate and insurance enterprises. George A. Staples having gone out of the firm, T. R. Cruttenden became a partner in the new firm of Staples & Company. Mr. Cruttenden died in 1882, and Mr. Staples continued alone until 1884. In October of that year, Philip L. Holzer and Frank T. Staples became associated with him in the firm of James Staples & Company, which has continued up to the present time. Mr. Holzer is a native of Bridgeport, and after the formation of the firm of J. & G. A. Staples, was a clerk in their house until 1870, when he was appointed clerk in the Connecticut National Bank in Bridgeport, remaining with that institution until he became a partner in the firm of James Staples & Company. Frank T. Staples, the only son of James Staples, was born in Bridgeport, November 24, 1863, and, after receiving his education at the public schools in that city, passed through a course of business training under the eye of his father, and was admitted to the firm, as above mentioned.

The business of the firm of James Staples & Company is carried on in their own building, known as the Staples Bank Building, five stories high, and occupied above the banking house by offices, and on the upper floor by a lodge-room and hall. No banking house in Connecticut is conducted on safer or more conservative methods, and none enjoys a higher reputation in the community. It is a house for discount and deposit, and all depositors' balances, averaging \$500 or more, receive a satisfactory rate of interest. It contains a thoroughly fire and burglar-proof safe deposit vault for the benefit of its customers, built and equipped in the most substantial and approved manner. The Staples Bank Building was completed in September, 1892, and is the equal of either of the many costly and durable structures which have been erected in Bridgeport during recent years. The real-estate and insurance departments of the firm are still in full operation, but its distinctive character is that of a permanent and successful banking house.

James Staples married, first, January 19, 1851, Harriet H., daughter of Hugh Shirley, of Searsport, Me., who died April 2, 1852, and second, September 21, 1858, Sarah Elizabeth, daughter of Andrew and Sarah (Turney) Trubee. Mrs. Staples is descended from Andris Trubee, who came from Holland about the year 1700 and settled in Boston, where he entered into business with a Mr. Solomon, a brother Hebrew. The firm of Trubee & Solomon established a branch house in Fairfield, Conn., and Mr. Trubee became its manager. Since that time, the descendants of Andris Trubee, in the line of Mrs. Staples, have made Connecticut their home. Mrs. Staples is also descended from Thomas Staples, who came to Kittery in 1640 with his brother Peter, the ancestor of her husband. Thomas Staples removed to Fairfield about 1650, and became a prominent man in public affairs. His wife was accused of witchcraft by Roger Ludlow, and a successful suit for defamation of character against the accuser was

the means of putting an end to the delusion, which in some localities was attended by such serious results. Frank T. Staples, the only son of Mr. James Staples and his wife Sarah Elizabeth (Trubee) Staples, and already mentioned as a member of the firm of James Staples & Co., married, December 16, 1884, Laura Francis, daughter of William Stevens.

The foregoing imperfect sketch of the career of Mr. Staples sufficiently suggests the character of the man. To some men early adversity inflicts a blow never recovered from, a wound never healed or cured. Their energy is crippled, their elasticity of spirit destroyed, their hope crushed. The fault is in the men. To others it comes as a test of native vigor, as an incentive to effort, as the creation of a spirit of resistance against accident and fate, as an inspiration to a determination to overcome every stumbling block in the path to success. To Mr. Staples the misfortunes of 1857 proved to be the key to his prosperous life. In them he found, as many a man has before him, a knowledge of his powers, a chart of the shoals and quicksands of business to be avoided, a will hardened and strengthened, as the muscle is, by exercise and work, an ambition to overcome that proves to so many their final fall.

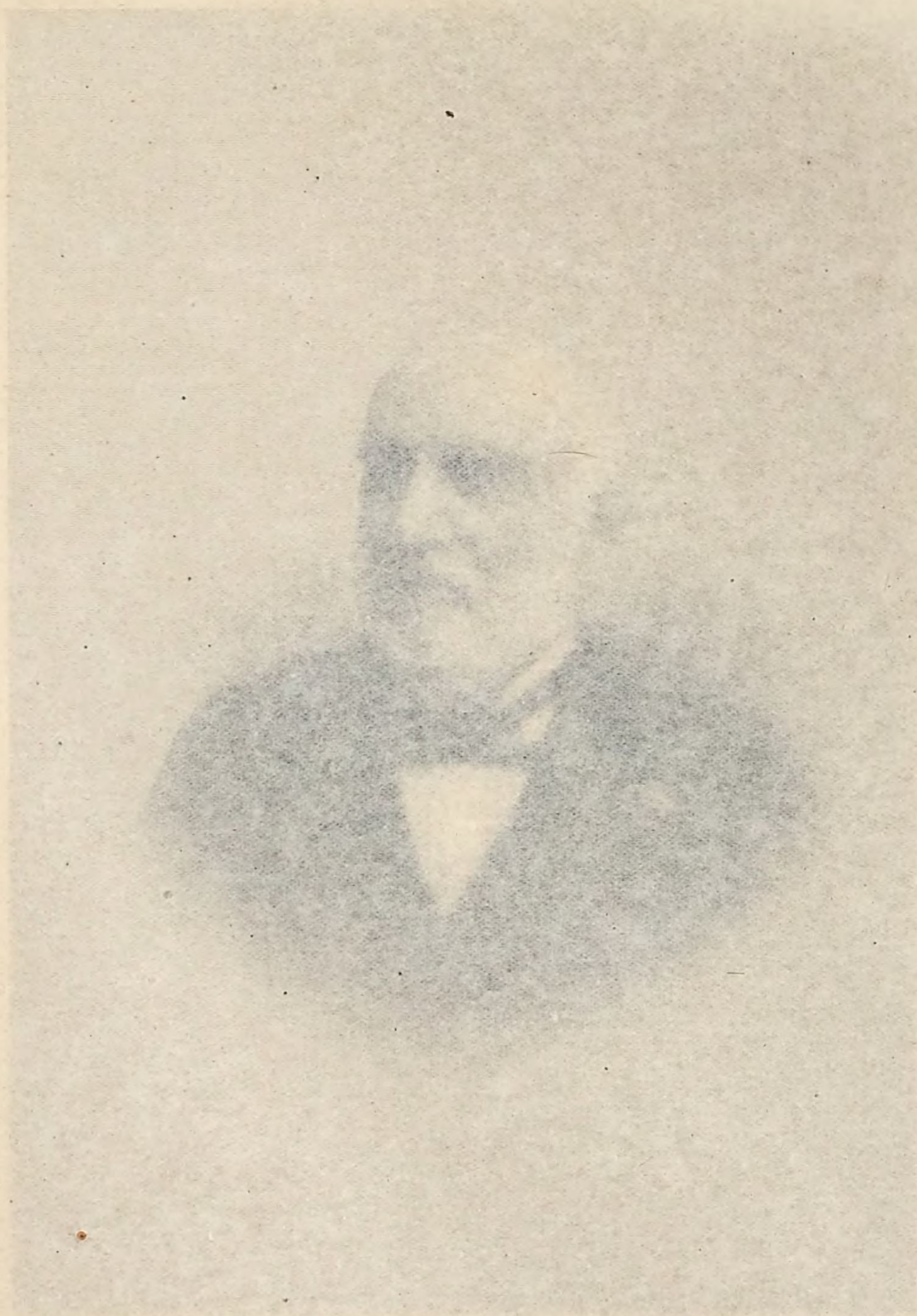
Aside from his own business, Mr. Staples has taken an active part in promoting the prosperity of his adopted city. As a member of the Bridgeport Board of Trade he has aided in the establishment of various manufacturing enterprises, and is at the present time the president of the Consolidated Rolling Stock Company. He has always felt a deep interest in the cause of education, and has been a member of the School Board of Bridgeport. Every cause in the interest of the moral, religious and social welfare of the community of which he is a member finds in him a zealous and generous friend.

LYMAN WETMORE COE.

MR. Coe was the son of Israel and Nancy (Wetmore) Coe, and was born in Torrington, Conn., June 20, 1820. He was educated at the public schools of his native town, until the removal of his father to Waterbury, Conn., when he became a pupil in the high school of that town. His education was completed at the Morris Academy and at the private collegiate institute of Professor W. W. Andrews at South Cornwall, Conn. After leaving school he entered as clerk the store of Wadhams, Coe & Company at Wolcottville, having previously, for a few months only, been occupied as a boy in a store at Waterbury. At the end of two years he removed to Terryville, and entered the employ of Lewis, McKee & Company, who were the first cabinet-lock manufacturers in the United States.

In 1841 he assumed the position of secretary of the Wolcottville Brass Company, and served until 1845, when he took charge of the brass-wire mill at Cotton Hollow, a portion of the plant of the Waterbury Brass Company. In 1846 he was chosen secretary and treasurer of that company, and removed to Waterbury, the headquarters of the corporation. The mills at Cotton Hollow were removed to Waterbury, and for eighteen years Mr. Coe was the general and financial manager. Under his control the company enjoyed uninterrupted prosperity, and took high rank among the manufacturing establishments of New England.

In May, 1863, Mr. Coe bought the stock of the Wolcottville Brass Company, and organized the Coe Brass Manufacturing Company, with a capital of \$100,000. The company was located in Torrington, and Mr. Coe was chosen president. This com-



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A perfect sketch of the career of Mr. Staples sufficiently suggests the character of the man. To some men early adversity inflicts a blow never recovered from; their energy is crippled, their elasticity of mind is lost, their hope crushed. The fault is in the men. To others, adversity is an incentive to effort, as the creation of a spirit of independence and self-reliance, as an inspiration to a determination to overcome every obstacle in the path to success. To Mr. Staples the misfortunes of his early life were the key to his prosperous life. In them he found, as many a man finds, a knowledge of his powers, a chart of the shoals and quicksands of adversity to be avoided, a will hardened and strengthened, as the muscle is, by exercise, and an ambition to succeed that proves to so many their final fall.

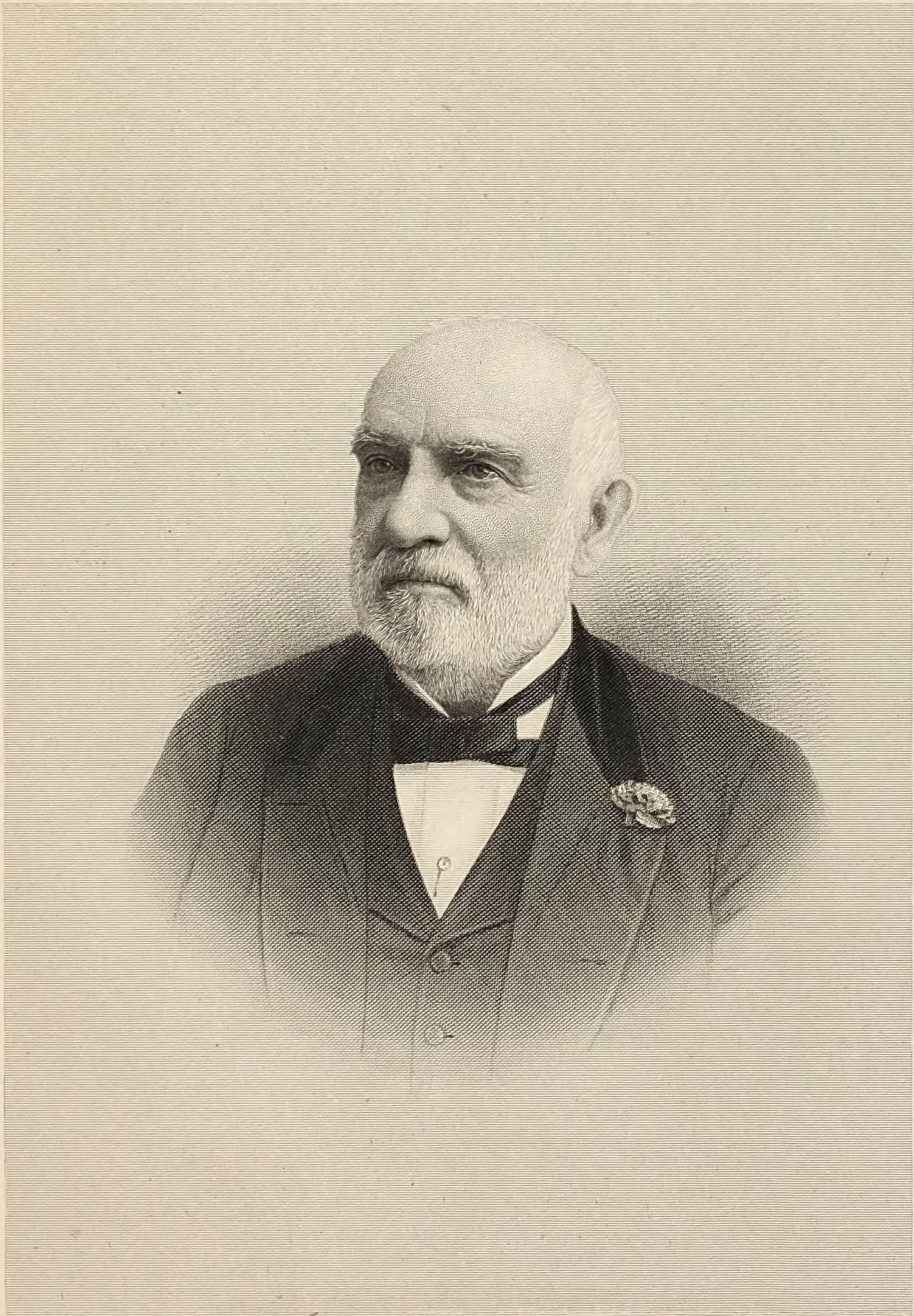
From his own business, Mr. Staples has taken an active part in promoting the progress of his adopted city. As a member of the Bridgeport Board of Trade, he has been instrumental in the establishment of various manufacturing enterprises, and is at the present time the president of the Consolidated Rolling Stock Company. He has also taken a deep interest in the cause of education, and has been a member of the Board of Education of Bridgeport. Every cause in the interest of the moral, intellectual and social welfare of the community of which he is a member finds in him a warm and generous friend.

LEMAN WETMORE COE.

Mr. Coe was the son of Israel and Nancy (Wetmore) Coe, and was born in Torrington, Conn., June 30, 1830. He was educated at the public schools of his native town, and the removal of his father to Waterbury, Conn., when he became a pupil in the high school of that town. His education was completed at the Morris Academy — at the private collegiate institute of Professor W. W. Andrews at South Coventry, Conn. After leaving school he entered as clerk the store of Walbridge, Coe & Company at Wolcottville, having previously, for a few months only, been occupied as a boy in a store at Waterbury. At the end of two years he removed to Torrington and entered the employ of Lewis, McKee & Company, who were the first cabinet-makers in the United States.

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L. W. Love

pany has gradually but surely gained a high position as one of the leading establishments of its kind in the United States, and its products find a ready market on both sides of the ocean. At the present time the manufacturing operations of the company are carried on by six steam-engines with water-power in addition. A large force of employees finds steady work, and the capital of the company has been increased to \$325,000. Few establishments in Connecticut have advanced more rapidly on the road to success than the Coe Company; and to the energy, sagacity, prudence and skill of its president its advancement is chiefly due.

But Mr. Coe did not permit his business to engross his whole attention and time. In 1845 he represented the town of Torrington in the Legislature, but his removal to Waterbury the next year prevented his re-election. In 1858 he was chosen a representative from Waterbury, but declined a renomination. In 1862 he was chosen state senator from the fifth district, and again his removal from the district which he served precluded a renomination. In 1876 he was again chosen senator from the fifteenth district, and, by successive re-elections, remained in the senate board five years. As a representative and senator, both on the floor and in the committee-room, he was an earnest and active champion of measures looking to the business and moral welfare of the state.

In the display of public spirit, Mr. Coe was not excelled by any one in the community of which he was a member. The prosperity of his native town was ever uppermost in his mind, and to every enterprise tending to promote it he was ready to render liberal aid. By his fellow-citizens he was both respected and loved, and his advice was always sought at the inception and in the management of both public and private schemes. It has been truly stated that he was "a cultivated gentleman, a good citizen, a helpful neighbor and a sincere Christian."

Mr. Coe married, November 3, 1841, Eliza, daughter of Samuel Seymour, of Torrington, and died in that town February 9, 1893. The announcement of his death caused general mourning in the town, and on the day of his funeral business was suspended, the factories, stores and banks were closed, and flags were flying at half-mast. Among the tributes paid to his memory by various corporations, with which he was connected, was that of the company of which he was president, which set forth in concise language a sketch of his career and closed with these words:

"The leading characteristics of Mr. Coe in his business relations were his pronounced convictions and courage in maintaining them, his quick perception of advantageous circumstances and ability in utilizing them, the thoroughness of his plans, his wide views of the commercial field, his cordial and trusted relations with his associates and the patrons of the corporation, and his genial and equitable dealings with his fellow-officers and the employees of the company. The members of this board mourn his loss as that of an associate with whom they had ever been in the most cordial sympathy, a leader in whose sagacity they had placed especial confidence, and a personal friend to whom they had become deeply attached, and whose memory will ever be held by them in the warmest esteem."

GEORGE HEWLETT CLOWES.

THE family to which the subject of this sketch belongs had its origin on this side of the ocean in the town of Hempstead, L. I., in the latter part of the seventeenth century. In each generation since that time some of its representatives have been prominent, not only in the various professions, but also in the active business of mercantile and industrial life. The first American ancestor of the

family was Samuel Clowes, who came to New York in 1697. He was born in Derbyshire, England, March 16, 1674, and was instructed in mathematics by Hamsted, for whose use the Greenwich Observatory was built. He removed to Jamaica, L. I., with Lord Cornbury, in 1704, where he was the first practitioner in the law, and became eminent in his profession. His children were: Geraudus, Samuel, John, Peter, Joseph, Aletta, Mary, Katharine and Mellicent. Joseph Clowes, one of the above children, was the father of Rev. Dr. Timothy Clowes, an eminent divine, who was born in Hempstead, L. I., March 18, 1787. Dr. Clowes graduated at Columbia College in 1808, and from 1809 to 1817 he served as a clergyman of the Episcopal Church in Jamaica, L. I., and in Jersey City, and subsequently as chaplain of the New York Senate and as rector of St. Peter's Church in Albany. His service in the last-named church was of seven years' duration. In 1817 he returned to Hempstead and was employed for three years as teacher in the classical institute in that town. In 1821 he received the degree of LL.D. from Allegheny College, and in the same year was appointed the principal of Erasmus Hall in Flatbush, L. I. In 1823 he was chosen president of Washington College in Maryland, and presided over that institution six years, serving a part of the time as rector of the Episcopal Church in Chestertown, Md., and of St. Paul's Church in Kent county, Md.

In 1829, after the destruction by fire of Washington College, he returned to Hempstead and re-opened the classical institute in that town, securing for it during his long years' service a reputation as one of the best private institutions of learning in the country. In 1838 he was made principal of the Clinton Liberal Institute in Charlotte county, N. Y., and served four years. In 1842 he moved to Philadelphia, and devoted himself to literary pursuits and lecturing, after which he again returned to Hempstead, where he died June 19, 1847. His wife was Mary Hewlett, whose mother, Mary Sands, was descended from Sir Edwin Sandys, a son of Archbishop Sandys and brother of Sir Samuel Sandys, the lessee of the Manor House, in Scrooby, England, under whom William Brewster was a tenant when he organized the Pilgrim Church in 1606. Sir Edwin Sandys was the treasurer of the Southern Virginia Company, from whom the Pilgrims received their first patent of lands, which was afterwards superseded by a patent from the Northern Virginia Company. The American ancestors of the Sands family came to Boston in 1640, and his descendants came at a later date into possession of Block Island, finally removing to Long Island and occupying land about Sands Point, which takes its name from the family. Mary Hewlett, who became the wife of Dr. Clowes, was descended from George Hewlett, who settled on Long Island about the year 1700.

George Hewlett Clowes, son of Rev. Dr. Timothy and Mary (Hewlett) Clowes, was born in Clinton, Oneida county, N. Y., June 17, 1842, while his father was presiding over the Clinton Institute. In the year of his birth, his father removed to Philadelphia, and three years after to Hempstead, where, until he was eleven years of age, he attended the Hempstead Seminary and the Jamaica Academy. Afterwards, until the age of fifteen, he attended the academy in Thetford, Vt., and then entered the banking house of his brother in De Pere, Wis., where he remained until he entered St. Lawrence University at Appleton, in the same state. After leaving the university, he removed to Brooklyn, N. Y., and made his home with his mother, occupying himself in various ways. Early in the war he placed himself under the military instruction of Colonel Tompkins, and, after passing a successful examination before a board of United States examining officers, he was appointed adjutant of the McCand infantry, which position he, however, failed to retain on account of



*Yours Truly
George A. Howes*

Massachusetts Publishing Co. Everett, Mass.

political favoritism, and from causes incident to a process of consolidation. He afterwards enlisted as a private in the Forty-seventh Regiment of the New York National Guard, in which he was soon promoted to sergeant-major, holding that rank until his discharge. During a year and a half, he also served as paymaster's clerk on the U. S. gunboat "Flambeau," doing blockade duty, and afterwards on board the store-ship "Home" until she was ordered North, in the summer of 1864.

After his discharge from the navy he served as bookkeeper and salesman in the hat-manufacturing house of Garden & Co., of New York, and at the end of two years entered the employ of the Middlefield Fire and Building Stone Company of New York. In 1869 he was appointed paymaster's clerk on the United States Gunboat "Juniata," and sailing in July of that year, remained on the European station until 1872. On his return he was employed two years as loan and discount clerk of the New York Loan and Indemnity Company, in which position he secured the entire confidence of his employers and served well their interests by securing an important and valuable increase of their business. Among the customers of the company were the corporation of Brown & Brothers of Waterbury, Conn., who were carrying on an extensive manufacturing business in that town. Mr. Philo Brown, the president of Brown & Brothers, being in want of a young man to enter the employ of the company and identify himself with its interests, asked the president of the Indemnity Company if he could recommend such a man and was told in reply that Mr. Clowes had all the qualifications for the place sought to be filled. The Indemnity Company were then arranging to discontinue business and it was probable that his services would not much longer be needed.

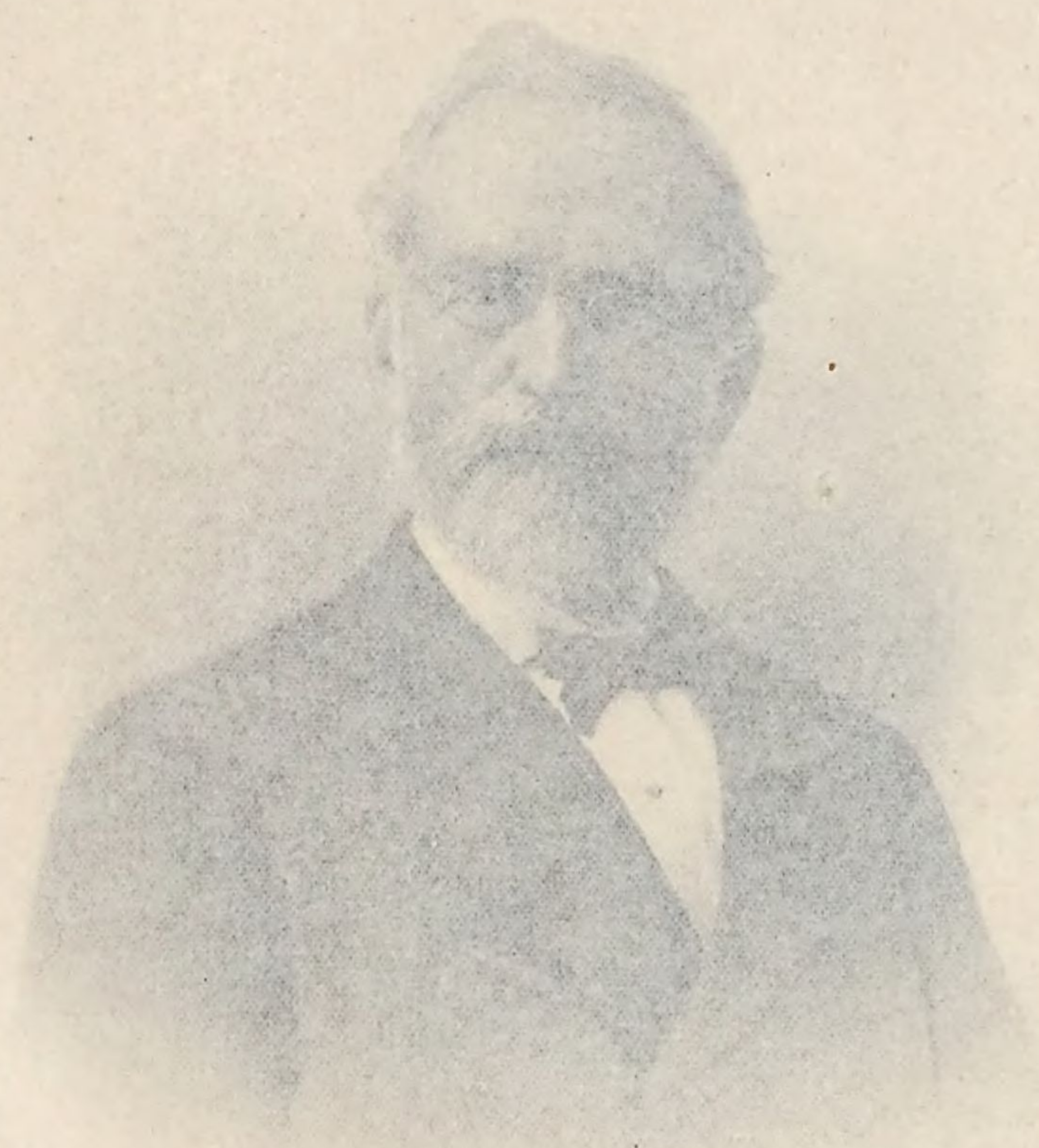
In January, 1875, Mr. Clowes went to Waterbury and continued eleven years in the employ of Brown & Brothers. In 1878, three years after Mr. Clowes entered the office of the company, the manufacture of seamless brass and copper tubes was added to their business. This business was, comparatively, a new one in the United States. It was first carried on under English patents about 1850 by the American Tube Works in Boston. About 1855 the North American Tube Works were organized in New York with a capital of five hundred thousand dollars, and built their mills at Mott Haven, N. Y., but failed, after experiencing several years of vicissitudes; was re-organized by other parties twice thereafter, finally continuing under the name of the Columbia Tube Works. The second and third time it was re-organized, there was a capital of three hundred thousand dollars each time invested, making in all in this enterprise, eleven hundred thousand dollars in the three organizations, all of which was lost in the endeavor to make seamless tubes in diameter not exceeding four inches. Mr. Clowes, by using different methods, and, after nearly ten years of constant experimenting, and with a large outlay of capital, has succeeded in making seamless drawn copper and brass tubes twenty-four inches in diameter and twelve feet long, also tubes thirty-eight inches in diameter and about one-half this length. The largest tubes made by any of the other mills in this country are only eight inches in diameter, and only two or three mills make over five inches to six inches in diameter. The larger the tube is, under the old methods of manufacture of over three or four inches, the more difficult it is to make, and the problem and difficulty increase with each additional inch in diameter over three inches. Randolph & Clowes, under Mr. Clowes' management and supervision, lead the world both as to capacity, sizes, varieties and quality of seamless copper and brass tubes. The Bridgewater Iron Company of Bridgewater, Mass., after many years of the greatest prosperity in the iron business, in which they accumulated a large surplus, lost it together with its original capital in its endeavor to build up a seamless tube business. This company

failed in 1886, at about the same time Brown & Brothers succumbed. At later different times other establishments were organized in various places in the northern states, but did not meet with success save in three or four cases, the most marked being that of Randolph & Clowes. It will thus be seen that there have been about as many organizations started in the past for the manufacture of seamless tubes which have failed and passed out of existence as there are now engaged in that peculiarly difficult business.

In January, 1886, Brown & Brothers made an assignment in insolvency. Soon after the assignment Mr. Clowes, with the financial assistance of Edward F. Randolph, of New York, bought that portion of the plant which constituted the seamless and brazed-tubing plant, boiler works and kettle business of the company. In April, 1886, the transfer of the property was effected, and the firm of Randolph & Clowes was organized to carry on a business in which a company with at one time unlimited resources and the highest credit had met with a disastrous failure. The partnership capital of the firm was at first fixed at \$75,000, which has been since many times increased. In beginning business only fifty men and one clerk were employed, and the entire plant covered less than two acres of ground. In March, 1889, the firm bought the remainder of the plant of Brown & Brothers, consisting of a brass and copper rolling-mill, and added to their business the manufacture of sheet brass and copper. Up to that time, with an investment of \$105,000, the volume of business had exceeded \$600,000 per annum, and the plant had increased in value to \$400,000. The new purchase covered about six acres of ground together with mills, one of which measured two hundred and fifty feet by one hundred and twenty-five. The business of the concern, which began only nine years ago with the employment of fifty men, now finds steady employment for five hundred, with a pay-roll of about \$25,000 per month. Thus the old establishment of Brown & Brothers, whose failure in 1886 seemed to be the death-blow to the industry in which they were engaged, has been succeeded by a new establishment of greater magnitude and importance and of more substantial benefit to the town in which it is located. Like Anteus, who, when he fell to the earth, received new strength and vigor, the ruin of the old company was followed by the greater activity and enterprise of the new. Starting with about two hundred customers, the firm has now about three thousand on its books, and its plant, which has cost, including the original purchase and betterments, about \$650,000, is now fairly valued at double that amount.

Though the firm of Randolph & Clowes still includes Mr. Edward F. Randolph as its senior partner, the business of the concern has been from the first conducted and managed exclusively by Mr. Clowes, and while due credit should be awarded to Mr. Randolph for the sagacity and foresight displayed by him in the financial aid rendered by him at the initiation of an enterprise, upon the success of which more timid men looked with doubt, the magnificent establishment and its successful career attest the wonderful courage, shrewdness, perseverance, practical methods and executive ability of Mr. Clowes as its manager and head. The arts of peace have their heroes as well as those of war, and no greater traits of character and mind are needed to achieve the victories of a military campaign than those illustrated in the inception, building-up and triumphant success of a gigantic industry, which adds to our national prosperity and gives employment and comfort and happiness to a community of fellow-men.

In the space allotted to this sketch no adequate description of the business of Mr. Clowes, its methods, its processes, its ingenious and complicated machinery, can be entered into. Few more interesting visits to the manufacturing establishments



J. W. Kellogg

THE NEW ENGLAND STATES.

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Engraved by A. H. Adams

J. W. Kellogg

of New England can be made than one to his works at Waterbury. They are situated opposite the station of the New York, New Haven and Hartford Railroad, in close proximity to the Naugatuck river, which furnishes a never-failing supply of water for its boilers and steam pumps and wells. The machinery, however, is operated by engines of two thousand horse-power.

Mr. Clowes married, June 27, 1882, Mamie T., daughter of Dr. George W. Blacknall, of Raleigh, North Carolina, and since 1875 Waterbury has been his permanent home.

Mr. Clowes is a staunch Republican, and as such may well feel proud of the following, which appeared in the *Waterbury Democrat* in April, 1893, concerning him :

"Under his direction every department of the firm's operations and business is so systematized that he is informed daily of the condition and outlook everywhere in which they are interested, and no action of importance is taken except by his orders. He is complete master of all details, and, unlike men whose names are linked with prominent enterprises, his success has been achieved in comparatively short time, and he lives to see his efforts fruitfully rewarded.

"The *Democrat* may at times differ with him on political questions, but in his capacity as business manager of large interests, and in his humane and kindly treatment of those in his employ, it respectfully bows to him as peer of any of the men whose names are or have been associated with the growth in manufacturing and commercial importance of the city. In the prime of mental and physical vigor, with bright prospects for the future of the superb establishment of which he is half owner and the operating head, Mr. Clowes may feel a just pride in what has been accomplished, and in the benefit Waterbury, as a whole, has received from the success of Randolph & Clowes."

Mr. Clowes was elected president of the Waterbury Board of Trade for 1894, at which time the *Waterbury Globe* (Democratic) spoke of him as follows :

"The Board of Trade certainly made a praiseworthy appointment when they selected Mr. George H. Clowes as presiding officer for the year 1894. Ever since his advent in local business circles in 1875 he has earned an enviable position among the solid business men of Waterbury. It is a fitting recognition of his executive ability, this appointment as president of the Board of Trade. Mr. Clowes is a progressive, public-spirited citizen, and is ever ready to aid in promoting any enterprise which will aid in the development of Waterbury."



STEPHEN WRIGHT KELLOGG.

THE subject of this sketch comes from good Revolutionary stock. His great-grandfather, Jacob Pool, was a lieutenant under Arnold in the expedition to Canada in 1775, and died before Quebec. His grandfather at the age of sixteen entered the army, and served during the last year of the war. His father, Jacob Pool Kellogg, was a blacksmith, and later in life a farmer in Shelburne, Mass., and married Lucy, daughter of Stephen Wright, of Westford, Mass. He is descended from Lieut. Joseph Kellogg, who appeared in Farmington, Conn., before 1650, and afterwards in Boston, where he is mentioned in a deed of reale-state as Joseph Kelog, late of Farmington.

Mr. Kellogg was born in Shelburne, April 5, 1822, and attended the public schools of that town until he was fourteen years of age, alternating, for a part of the time, attendance at school with work on his father's farm. At the above age he became a pupil in the Shelburne Falls Academy, then under the management of Rev.

for a time the school of Alvin Anderson. At the age of twenty, he taught and attended the academy in Winchendon, Mass., and at that age, in 1842, he entered Amherst College. Two terms he entered, in May, 1843, the first term of the beginning of its third term, and graduated in the summer of 1846, the Yale Law School, teaching at the same time in the Classical School of Aaron N. Skinner, in New Haven. In June, 1848, and began practicing in that town he served as clerk of the Court of Probate in 1853, from the fifth district. Having concluded that he would be better prosecuted in a wider field, he removed to Hartford, Conn., and was in the same year appointed judge of the Probate Court. He was also appointed judge of probate for the State of Connecticut, and served in that capacity seven years.

Mr. Kellogg served as representative in the Connecticut legislature, and was a delegate to the Republican National Convention held in 1860. He was chairman of the Connecticut delegation in the convention, and supported Rutherford B. Hayes for president. The high position he occupied was not only by his professional skill, but also by those traits which always secure the confidence and respect of the community. As a Republican candidate for representative to the United States Congress, and in a strongly democratic district he was chosen, and twice re-elected, serving from a six years' service, which was acknowledged by his constituents and the state. He served at various times on the Judiciary Committee and the Committee on Pacific Railroads, War Claims, Civil Service Reform and on the Committee on the Administration of the Government, of which two last committees he was chairman. In the House he procured the passage of bills re-organizing the Treasury and War Departments, which up to that time had been administered under ancient methods, and which new conditions and enlarged operations rendered necessary.

During the war Mr. Kellogg gave much of his time to the service of the country, and displayed persistent zeal in recruiting the depleted regiments of the Army. He afterwards took an active part in the organization of the Connecticut National Guard, and became successively colonel of the Second Regiment in 1863, and major-general in 1866, resigning the latter position when he became a member of Congress.

Though on his retirement from Congress Mr. Kellogg had performed service as a public officer, the eyes of his fellow-citizens were kept steadily on him with a view to further promotion. In 1878 he was president of the State Republican Convention, and declined the nomination for governor; and when the Republicans resumed the control of the legislature, after having been five years in the minority, he withdrew his name from the list of candidates for United States senator.

On resuming his law practice, which had been seriously disturbed by his Congressional service, he easily resumed also his leading position at the bar. Since that time he has confined himself closely to his professional duties, keeping himself conversant of the course of public affairs, and occasionally indulging in



Wm. R. Coffin

publication of monographs in criticism or approval. Two days after the death of President Garfield he published an article on the "Presidential Succession," which formed the basis of the system which Congress afterwards adopted. As a lawyer he saw that the death of the Vice-president would endanger the peace, if not the life, of the Government, and that if some provision were not specially made to meet possible contingencies the nation might be left without a head. No man made a clearer or more prompt presentation of the impending danger than Mr. Kellogg, and to no man belongs more credit for the enactment of the law which provides for a Presidential succession in the event of the death or incapacity of both President and Vice-president.

During the last twenty years Mr. Kellogg's practice has been extensive, and largely connected with the law of corporations, and he was city attorney for six years in the early part of that time. Many important cases with which he has been connected are found in the Connecticut Reports of the Supreme Court. In 1881 and 1882 he was the counsel of the Knit Goods Association of Manufacturers of the United States in the Supreme Court and before Congress at Washington, and achieved a marked success for that great industry, which was in danger of serious injury by a mistake in the tariff law in the revision of the United States Statutes.

Mr. Kellogg married, September 10, 1851, Lucia Hosmer, daughter of M. A. Andrews, a leading member of the bar of Buffalo, N. Y., granddaughter of Chief Justice Stephen Titus Hosmer, and great-granddaughter of Titus Hosmer, a member of the Continental Congress in 1778 and 1779, and from 1780 until his death a judge of the Maritime Court of Appeals of the United States. She is also great-granddaughter of Gen. Samuel Walden Parsons of the American Revolution. His children have been: Sarah A., born September 11, 1852; Lucy Wright, January 14, 1855; Frank W., July 26, 1857; John P., March 31, 1860; Lizzie H., March 14, 1864; Stephen W., March 8, 1866, who died August 13, 1868; and Charles P., April 27, 1868. His son, Frank W., is a lieutenant in the navy; John P. has been associated with his father in the practice of law for more than ten years, is now city attorney, and rapidly rising in his profession. His youngest son, Charles P., is the active secretary of the board of charities for the state of Connecticut.

Mr. Kellogg is still living at his home in Waterbury in active practice, apparently not yielding to the ills of age, with body and brain as alert as those of much younger men, and unconscious of any admonitions as yet to put on the brakes and diminish the speed of a busy life.



HERBERT R. COFFIN.

THE Island of Nantucket was discovered in 1602 by Bartholomew Gosnold. In 1641 it was conveyed by James Forrett, agent of William Earl of Sterling, to Thomas Mayhew and his son Thomas, of Watertown, Mass., and their associates. On the 2nd of July, 1659, Mr. Thomas Mayhew, with certain reservations, and in consideration of thirty pounds, and two beaver hats, one for himself and one for his wife, sold it to Tristram Coffin, Thomas Macy, Christopher Hussey, Richard Swain, Thomas Barnard, Peter Coffin, Stephen Greenleaf, John Swain and William Pile. On the 10th of May, 1660, Wanackmamack and Nickanoose, head sachems of the island, conveyed their interests to the above grantees, Tristram Coffin and others, and their title was thus confirmed. The purchasers resided in Essex county, Mass., and soon after coming into possession, removed their families to the

island. In the history of Nantucket the Coffin family has been distinguished in every generation. In 1806 Admiral Sir Isaac Coffin, of the English Navy, visited the island, and in memory of his visit established the Admiral Sir Isaac Coffin's Lancasterian School, and gave a fund of one thousand dollars for its support.

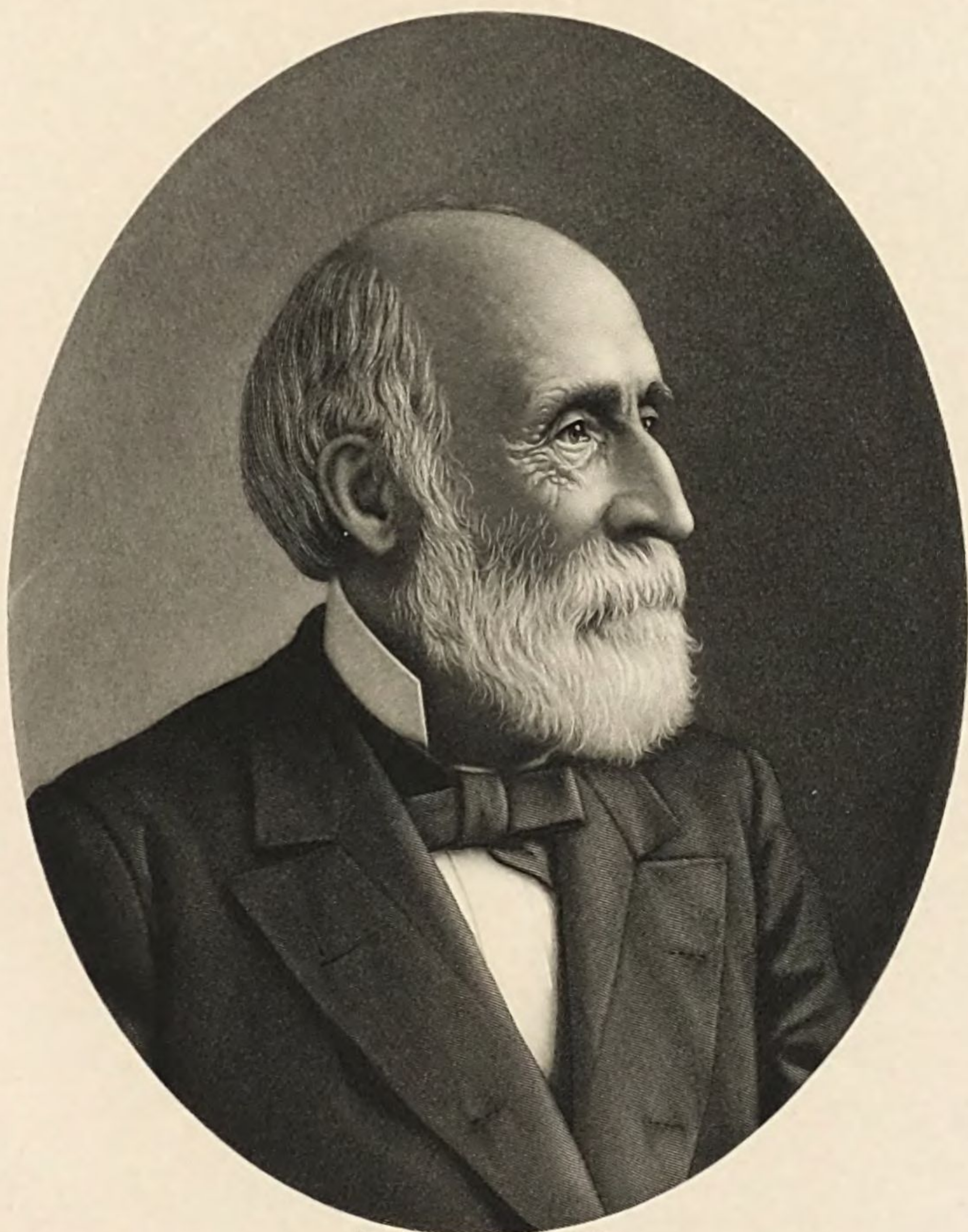
Herbert R. Coffin traces his descent from the old Nantucket stock. His great grandfather, George Coffin, lived at Winchendon, Mass., where he married Mary Raymond. His grandfather, John Coffin, born in Winchendon, married Sally Rogers, of Northampton, Mass., and resided at South Royalston, Mass., where, in company with Roderick Bullock, the father of the late Alexander H. Bullock, of Worcester, he was engaged in the manufacture of carriages. George S. Coffin, the father of the subject of the sketch, born in Royalston, was at one time extensively engaged as a manufacturer of goods in Rindge, N. H., and Winchendon, Mass. He was afterwards engaged in the business of grading and scouring wool in Rindge, N. H., and Windsor Locks, Conn. He married Sarah A. Scovell and died in Winchendon, 1877, leaving a widow, who is still living in Windsor Locks.

Herbert R. Coffin, son of George S. and Sarah A. (Scovell) Coffin, was born in Rindge, N. H., August 6, 1834. His father removed to Winchendon when he was six months old, and he attended the public schools of that town. He attended later Black River Academy, in Lowell, Vt., the Kimball Union Academy, in Meriden, Conn., and the Troy Conference Academy, in West Poultney, Vt. In 1856, at the age of sixteen, he went to Boston, and, as boy and clerk, spent five years in the house of Upham, Parker & Company, a prominent dry-goods commission house in that city, where the foundation of his business character was laid. He could have attended no school better fitted for this purpose. The members of the firm were gentlemen, as well as men of business, and there could have been found no better models for a young man to follow, who was just crossing the threshold of a business career.

At the age of twenty-one, Mr. Coffin became a clerk in the office of William F. Weld & Company, of Boston, a large shipping and exporting and importing firm, where he realized for the first time how closely the nations of the earth are associated together, and the magnitude and importance of their business connections. At the end of two years, however, he was called back to his native town to associate himself with his father in the business of grading and scouring wool. The business was carried on two years in Rindge, under the firm-name of Herbert R. Coffin & Company, and was then transferred to Windsor Locks, Conn. The firm continued until 1867, when Mr. Coffin sold out his interest to his father, and the partnership was dissolved.

At that time C. H. Dexter was manufacturing paper in Windsor Locks in what were called the Four Mills. These mills were established by Mr. Charles H. Dexter, in 1846, and had been managed with shrewdness, prudence and profit. At the time of the dissolution of the firm of H. R. Coffin & Company, Mr. Coffin had married a daughter of Mr. Dexter, and he at once entered the paper establishment as a clerk in the office. At the end of a year, he was admitted as a member of the firm of C. H. Dexter & Sons. The firm-name still continues, and Mr. Coffin, who came into the possession of the interests of the other partners after their deaths, is the sole member.

The town of Windsor Locks is situated on the west side of the Connecticut river, about midway between Springfield and Hartford. The river, for five miles or more above the town, is a rapid with considerable fall, and in 1824 the Connecticut River Company was incorporated for the purpose of supplying water-power to manufacturing establishments. A canal was cut at a cost of \$300,000, about six miles in length,



Engraved by Samuel Sartain, Phila.

D. W. Plumb

and on the strip of land, between the canal and the river, a considerable number of factories were built, and among them the mills of C. H. Dexter & Sons. The water-power of the Connecticut River Company gave rise to the town.

Mr. Coffin employs about eighty hands in his mills, and, with the use of different qualities of rags and of wood-pulp, turns out a product consisting chiefly of copying paper, tissue paper and typewriting paper. The sale of the product is made to fill orders secured by traveling salesmen, and the only office of the concern is in the mill.

Besides the paper mill Mr. Coffin carries on a flour and grain establishment, connected with which is a grist mill, and in this establishment, managed by his son, ten or a dozen men are employed. But these industries are far from exhausting the energies and business skill of Mr. Coffin. These are called into use in the management of other enterprises. He is a director in the Connecticut River Banking Company of Hartford, director and vice-president of the Windsor Locks and Warehouse Point Bridge Company, director in the Medlicott Company, manufacturing knit goods, with a capital of \$125,000, and president of the Connecticut River Water Power Company already referred to. He is also an active member of the Congregational Church in Windsor Locks, of which he has been twenty-seven years the treasurer and twenty years a deacon. Though earnest in his advocacy of the principles and measures of the Republican party, he has neither sought nor been willing to accept political office. He is wholly and conscientiously devoted to his business, his home and those public duties which no patriotic and public-spirited citizen can overlook. To be loved in his home, to be respected in the community, to perform every service imposed on him as a son of God and a brother of his fellow-men, is his highest aspiration.

Mr. Coffin married, December 4, 1866, Julia Sargent, daughter of Charles H. Dexter and widow of Thomas Haskell, of Windsor Locks, who had at the time a daughter, Thomasine Haskell, three years old, and who is now living. His own children have been Arthur Dexter, who married Cora L. Drake, of Suffield, Conn., and has charge of the flour and grain business of his father; Herbert R., Jr., who married Eugene Warburton, and Grace Pierson Coffin.

DAVID W. PLUMB.

PROMINENTLY identified with the industrial history of Birmingham, and one who justly ranked among Fairfield county's most esteemed and honored citizens, was the late David W. Plumb, who, for more than thirty years, had been a leading spirit in this community. He was born in Trumbull, Connecticut, October 13, 1808. He was of English descent, and traced his ancestry in this country on the paternal side to Robert Plumb, who was one of the first settlers of Milford in 1639, and, on the maternal side, to Thomas Wells, who was governor of the state in 1655, and who held other offices as early as 1641.

When David was five years of age the family removed to what was then the town of Stratford, now embraced within the limits of the city of Bridgeport. His father, Noah Plumb, was a progressive agriculturist and a highly respected and leading citizen and represented Bridgeport many times in the legislature, both in the House and Senate.

Mr. Plumb was educated at the common schools, also attending a few terms at

academies and select schools, where he pursued his studies with diligence and attention, and acquired an education which greatly aided him in his subsequent successful business career.

He remained on his father's farm until 1831, when he opened a small country store at the ferry-village, in the north part of Bridgeport. Realizing the advantages of the water-power at Birmingham and vicinity, he removed to Birmingham in 1836 and engaged in woollen manufacturing in company with Mr. B. B. Beach.

In 1837 he removed to Ansonia and built a mill on the water-power which James G. Phelps had established there. In 1865 he disposed of this business to the State Manufacturing Company, and, in 1868, removed to the new village of Shelton, where the Ousatic Water Company had brought the waters of the Housatonic river into use. All measures tending to advance the interests of Ansonia, Birmingham and Shelton found in Mr. Plumb an earnest and able advocate.

In 1834 he obtained charters for the borough of Ansonia and the incorporation of the Ousatic Water Company, in which company he was director and vice-president until his death, June 29, 1893.

Politically, he was a Republican, and never swerved from the principles of that party. He was an active factor in the counsels of the party in that state and had frequently been chosen by his fellow-citizens to represent them in the Legislature, and he represented the town of Derby in the Legislature in 1838, 1852, 1860, 1862, and 1864, and the Fifth Senatorial District in 1841, in which latter year his father represented the Bridgeport District in the Senate.

During his term of service, and largely through his instrumentality, charters were obtained for the borough of Ansonia, the Savings Bank of Ansonia, the Ousatic Water Company, and the removal of the Bank of North America from Seymour to Ansonia, with the change of title to the Ansonia Bank. Mr. Plumb was treasurer of the Ansonia Savings Bank during its existence; was president of the Ansonia Bank until he resigned, and was vice-president of the Birmingham National Bank at the time of his death. He was the first warden of the borough of Ansonia, and gave much of his time and energy to the development of Riverview Park. He was a strong temperance man, opposed to slavery and in favor of the free-soil movement.

In 1841 he united in marriage with Miss Clarissa Allen, who died in 1865; and in 1873 he married Miss Louise Wakelee, of Huntington, who survives him.

Mr. Plumb was a man of sound discriminating judgment, fearless and impartial in the discharge of official and private duties. He was a man of spotless integrity, quick apprehension and accuracy, of method and faithfulness in business, and these qualities made him an acknowledged leader in the community. He was gentle in manners, low in principle, earnest in his convictions, steadfast in his opinions, charitable, benevolent and kindly without ostentation. He was beloved by his fellow-citizens, for he took an active interest in whatever concerned the welfare of the community, always doing his part cheerfully and generously.

As an expression of his townsmen, a few extracts are added from resolutions adopted by the directors of the Birmingham National Bank, upon his death:

"His was a long and busy life, the earlier years of which were years of trial and struggle. His courage, his patience and perseverance, and above all, his indomitable will and intelligent determination, overcame all obstacles, and won for him a success most richly deserved.

"With ample resources, so worthily gained, having established himself in his new home on the heights, and, looking out from its commanding position, as he surveys the scene of his future life, the thoughtful man doubtless outlines the plan of his life.



W. W. Preston & Co. N. Y.

F. A. Brown

"His purpose is revealed in the important part taken by him in carrying to destined completion that great public work known as the Ousatonic Water Company ; in fostering and encouraging new enterprises ; in adding another name to the long list of towns made strong and prosperous by the thrift and energy of New England manufacturers ; in contributing to the endowment of a hospital in the place where he was born ; and in the gift which made possible and actual a public park in the place where he died.

"As in adversity he had shown himself equal to all its exigencies, so his spotless integrity, sound judgment, independence in thought and action, coolness in time of financial or other excitement, and faithfulness to duty, revealed him equally well-equipped for the difficulties, may it not be said greater difficulties, which prosperity brings. As adversity could not depress, so prosperity could not elate, him.

"Mr. Plumb was a man of character, strong character, simple in his tastes and ways, of pure life, happiest at his home. His fondness for reading and a most retentive memory made his knowledge extensive, accurate and responsive to call. His opinions were his own and when formed were not easily changed.

"Summoned many times by a confiding constituency to the legislative councils of the state, his fidelity was as conspicuous as his knowledge of the needs and aids which wise legislation should supply was varied and accurate. With him public office was in truth a public trust.

"In his death this bank has lost an intelligent, efficient and faithful officer, one who, believing that the acceptance of office involved the obligation of fulfilling strictly all its duties, was uniformly present at its meetings, and by his watchful care and wise counsel rendered invaluable service to this institution."

FLAVIUS A. BROWN.

THE subject of this sketch, for many years a resident in Hartford, where he deservedly won a reputation for industry, integrity, intelligence and executive ability, carried in his veins the blood of the Trumbull family, so illustrious in the annals of Connecticut. He was the son of William and Elizabeth (Trumbull) Brown, and was born in Hebron, Conn., August 31, 1806. His early life was spent on the farm among the hills of Tolland county, and his education was received in the public schools of his native town. At the age of sixteen years, having acquired great proficiency in the use of the pen, he became an instructor in penmanship in the district schools of Tolland county. In 1829 he removed to Hartford and was engaged as writing-master at the old "Stone School" on Market street. From that time until his death his interest in that school and in all the schools of the city never ceased. In 1868 the Stone School district had so largely increased in numbers that a new building was erected, and as a fitting tribute to his fidelity to the interests of the district, the school was re-christened the "Brown School." The secretary of the Connecticut Board of Education, in his report for 1880, made after the death of Mr. Brown, said that "probably no citizen of Hartford was ever connected with its schools for so long a period and in such varied relations as Mr. Brown. His devotion to the interests of education was so earnest, lasting and intelligent, as to make his life an example, alike to school officers, teachers and pupils. He was connected with the First school district of Hartford from 1829 to the time of his death, February 13, 1880, for six years as teacher, and after 1835 as one of the committee. He was chairman of the district committee from September 29, 1843, until his death, and for a long period clerk and treasurer of the district. He was secretary of the board of school visitors from October, 1856, until his decease."

But the time and energies of Mr. Brown were by no means exclusively devoted to the welfare of the schools. He was during nearly his entire residence in the city

engaged in active business. In 1853, in company with Caleb L. Packard, he established the firm of Brown & Packard in the book trade. In 1838 Edward W. Parsons took the place of Mr. Packard, and the firm-name became Brown & Parsons. In 1852 Mr. Parsons retired, in order to take the agency of the Adams Express Company in Hartford, and the firm of Brown & Gross was soon after formed, with William H. Gross as the junior partner, which continued until Mr. Brown's death.

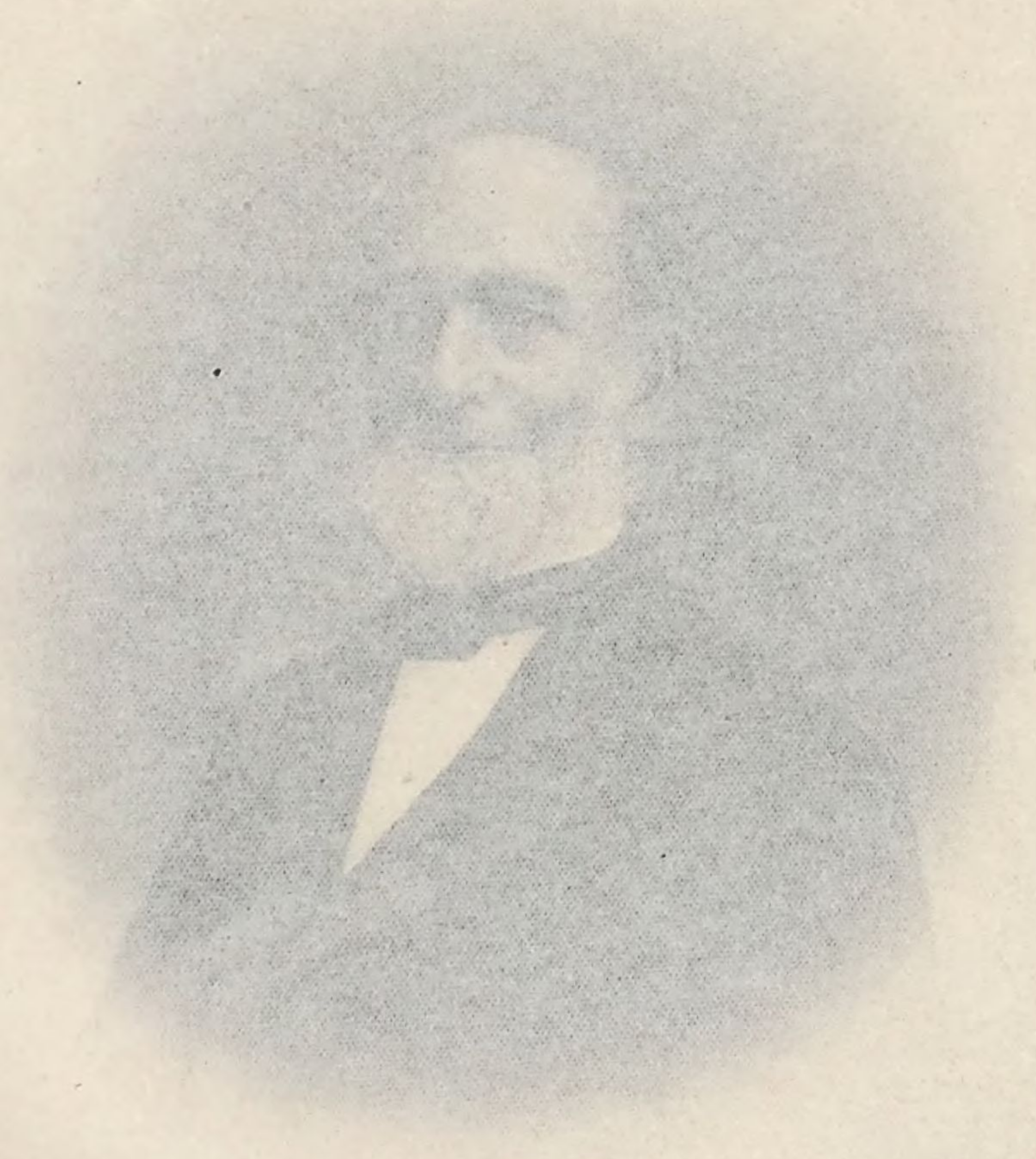
Nor did his own private business and his efforts in behalf of the schools exhaust the almost unlimited supply of energy which Mr. Brown was always ready to draw upon for the public good. He was one of the founders of the Hartford Hospital, and from its formation for more than twenty years its secretary and treasurer. He was a director in the Connecticut River Banking Company, the State Mutual Fire Insurance Company, and for many years in the Hartford National Bank. He was the treasurer of the Connecticut State Agricultural Society from the time of its organization until his death, covering a period of twenty years. He was also secretary of the Hartford County Agricultural Society for fifteen years, and in everything tending to promote agricultural interests generally he was zealous and active. A devoted member of the Episcopal Church, he was one of the vestrymen of Christ Church in Hartford, and its clerk from 1848 until his death, and he also served as warden of the parish for a number of years.

Nor again was his activity exhausted by the added work of these various positions. In 1857 he was chosen city treasurer and in 1858 town treasurer, and both of these offices he held during the remainder of his life. Though a firm Democrat he was an efficient, industrious servant of the people, and commanded the votes of all political parties. It has been said by one who knew him well, that in the management of the financial concerns of the city "he carefully took the best advice and acted upon his own good judgment. The lesson of his life was a lesson of honesty, an obstinate honesty. It was obstinate because it held out stiffly against all sorts of conventional concessions to fraud and duplicity." Selfishness found no place in his life. His whole energies were devoted to the good of his fellow-men. Without guile or ostentation he labored constantly for the advancement of the interests of others. "He felt an inspiration from the consciousness that he was working for the church, the school, the city, the town, the county and the state."

Mr. Brown was married twice. His first wife was Julia Bailey, of Hartford, and his second, who survived him, Martha, daughter of Rev. Luke Wood, of Somers, Conn., and sister of Dr. Wood, the well-known ornithologist of South Windsor.

HEZEKIAH SIDNEY HAYDEN.

HEZEKIAH SIDNEY HAYDEN was born January 29, 1816, at Windsor, Conn. He was a descendant of William Hayden, a distinguished soldier of the Pequot war, who settled in Windsor in 1645. His boyhood was passed on the farm till his fifteenth year, when he became so sensitive to the poison of ivy and elder, that he was unfitted for life on a farm, and went into a country store in Windsor. Thence after two or three years to his brother's, a successful jeweler in Charleston, S. C. Here he applied himself with the untiring energy ever characteristic of him. On the retirement of his brother in 1843, he became the head of the house and continued the business with increasing success. In 1858, becoming convinced that the political disturbances would result in disaster, he returned to Windsor with his



W. Sidney Hayden

Engr. by H. B. Hall, 1887

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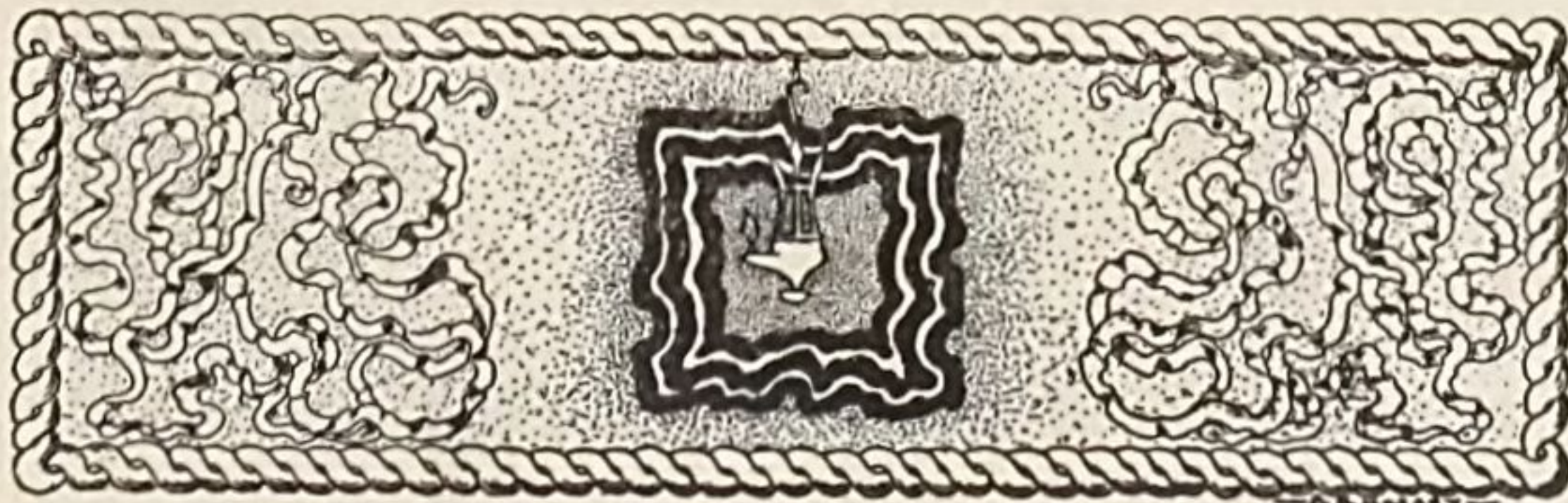
Eng^d by H. B. Hall's Sons, N. Y.

well-earned fortune. Building a fine residence on Broad street, where he resided till his death in June, 1896, he at once identified himself with every interest of the old town which he loved and took great pride in. He opened streets with sewers, built many houses and the village water-works, besides aiding every new enterprise. It was largely through his instrumentality and generosity that Grace Church, of Windsor, was built. He was a member of both branches of the legislature, town treasurer for years, and Judge of Probate for twenty-seven years, until disqualified by the age limit. What Mr. Hayden considered his best work was done for the Connecticut Hospital for the Insane. When he resigned from the board of trustees in 1889, they adopted resolutions from which we quote as follows: "To no citizen of our state is a greater debt of gratitude due than to Mr. Hayden. From the very inception of the plan for the founding of our Insane Hospital, before 1865 to last July, when he retired, he has been untiring in his devotion to, and work for, the afflicted in mind in the state."

Judge Hayden passed away in June, 1896, in the eighty-first year of his age.

LYNDE HARRISON,

ONE of New Haven's most influential and prominent lawyers, is probably one of the best known public men in the state. Judge Harrison has devoted nearly a generation to the public service of his native town, county and state. He was born in New Haven in 1837, and received his early education in the Hopkins Grammar School and Russell's Collegiate and Commercial Institute. Having chosen the law as a profession, he entered Yale Law School and graduated in the class of 1860. He has always been active in politics since his majority, and in late years has carried much weight and been among the leaders of his party. In 1862-3 he served as clerk of the House of Representatives and in 1864 was promoted to clerk of the Senate; in 1865 was returned to the Senate as a member, where he remained two years; in 1871 was chosen judge of the city court of New Haven; was a member of the legislature from 1874 to 1877, and from 1877 to 1881 sat on the bench as judge of the court of common pleas for New Haven county. In 1881 he returned to the legislature, and was recognized as the leader of his party. He was chairman of the Republican State Central Committee from 1873 to 1876, and again from 1884 to 1888, and was a delegate to the national convention in 1876 and 1880. He has always been a prominent and influential leader as a jurist and statesman, and no question of public importance fails to arrest his attention and enlist his energies either on the one side or the other.



The New England States their constitutional, judicial, educational,
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